

# I. FORSCHUNGSBERICHT

## Avestan Research 1991–2017 Part 2: Morphology, Syntax, Lexicon (nos. 32–79)

### Synopsis:

- |  |  |
|--|--|
| 32. Derivational morphology              | 57. Present participles  |
| 33. Inflectional accent and ablaut       | 58. Aorist   |
| 34. Number                               | 59. Stative and <i>i</i> -passive                              |
| 35. Case endings                         | 60. Perfect  |
| 36. <i>a</i> -stems                      | 61. Infinitives  |
| 37. <i>i</i> - and <i>u</i> - stems      | 62. Composition  |
| 38. <i>ī</i> -stems                      | 63. Derivation   |
| 39. <i>n</i> -stems                      | 64. Suffixes   |
| 40. <i>r</i> -stems                      | 65. Onomastics   |
| 41. <i>s</i> -stems                      | 66. Syntax   |
| 42. <i>iš</i> -stems                     | 67. Number   |
| 43. <i>t</i> -stems                      | 68. Cases  |
| 44. Demonstrative pronouns               | 69. Ergativity   |
| 45. Personal pronouns                    | 70. Verb syntax  |
| 46. Pronominal adjectives                | 71. Participles  |
| 47. Comparative                          | 72. Hypotaxis  |
| 48. Superlative                          | 73. Stylistics and poetics                                     |
| 49. Numerals                             | 74. Lexicon  |
| 50. Verbal morphology                    | 75. Semantics  |
| 51. Personal endings                     | 76. Substrate words in Ilr.                                    |
| 52. Thematic and reduplicated presents   | 77. Ilr. loanwords in Finno-Ugrian languages                   |
| 53. <i>nu</i> - and nasal infix presents | 78. Iranian loanwords in Greek, Caucasian and Semitic language |
| 54. Intensives                           | 79. Studies of individual words                                |
| 55. Denominatives                        |  |
| 56. Moods                                |  |

### 32. Derivational morphology

Rau 2009, 78–109 surveys instances in Av. and Ved. of “Property concept” adjectives showing Caland system alternations. He argues that, in PIE and the early IE languages, the Caland system is the main derivational mechanism for nominalizing property concept states, in particular those encoded by morphologically simple root-based formations. Dell’Oro 2015 studies the Caland system as a theoretical problem in the history of Indo-European linguistics. Oettinger 2012, 213f. surveys Av. examples for internal derivation by substantivisation and retraction of the accent.

### 33. Inflectional accent and ablaut

Kümmel 2014 investigates the relationship between accent and suffixal ablaut in Indo-Iranian. With regard to Ved. and Av. inflectional paradigms of stem-classes which show evidence for proterokinetic inflection, he argues that vowel alternation in the suffix is not necessarily indicative of a shifting accent. Rather he suggests that in PIIr. and possibly also PIE the distribution of zero and full grade suffixes was not, or was no longer, directly governed by the accent, but by the structure of the root syllable. De Vaan 2004 examines the validity of the Av. evidence for so-called ‘Narten roots’, where inflected forms are constructed by means of an alternation of the root vowel between lengthened  $R(\acute{e})$  and full grade  $R(\acute{e})$ , while in other roots the vowel alternates between full and zero grades. According to him, all of the Av. forms which support the alternation characteristic of ‘Narten roots’ can be explained as resulting from developments within Avestan. Reviewing the debate and defending the existence of Narten roots, Keydana 2016 argues that in Indo-Iranian a small group of lexically accented verbal roots formed an active athematic inflectional paradigm with lengthened grade in the singular and full grade in the plural while the accent was static on the root. He identifies the inherent lexical accent on the root as the crucial feature which sets Narten roots apart from other verbal roots and concludes that the pattern survives in Av. and Ved. only in remnants in the form of thematic presents with long root vowel and in some lengthened grade forms outside the present tense.

### 34. Number

Tremblay 1997 argues that Av. preserves the category of numerative in the language of the Vidēvdād. The grammatical system of the latter would accordingly comprise not three but four numbers: singular, dual, plural and numerative. According to him, pairs such as Vd 9.33 *9raiiō xšafna* ‘three nights’ (numerative) vs. Yt 8.13 *dasa xšapanō* ‘ten nights’ (nom.pl.) indicate that a noun may take the ending of the numerative when it is immediately preceded by a numeral (p. 161f.). The stem may be strong or weak, with the clearest examples coming from athematic animate nouns (m. or f.), whose numerative forms look like thematic neuter plurals in *-a*. Tremblay

suggests that forms, which he describes as numerative, are vestiges of the IE comprehensive, identified by Eichner 1985, and that they constitute an archaic feature in the language of the Vidēvdād (p. 168). The origin of the category would thus be different from that of the numerative in Sogdian and Pašto, which Sims-Williams 1979, 339–342 derives from the Old Iranian dual.

Cantera 2001–2 argues that the IE comprehensive or collective, which serves as the neuter plur. in a range of IE languages, is historically a derivative rather than an inflectional category. He supports this view with reference to secondary derivatives that are based on comprehensives formed from both nominal and pronominal stems, such as OP *artāvan-*, Av. *\*ərtāuan-*, Ved. *ṛtāvan-* < *\*h<sub>2</sub>ṛtéh<sub>2</sub>-uan-* ‘righteous’, identified by Tichy 1986, and Av. *tāuuant-*, Ved. *tāvant-* < *\*teh<sub>2</sub>-uent-* ‘so great’, identified by Klingenschmitt 1972, 101, 108 notes 6 and 7.

### 35. Case endings

Gotō 2013, 8–15 surveys the Ved. case endings in comparison with Avestan. Nikolaev 2000 argues that PIE *\*-osjo* is a composite ending of the gen.sg. *\*-es/-os* extended by a particle *\*-jo*. It functions as the marker of the genitive case in PIE ergative preterite constructions and contrasts with the gen. in *\*-es/-os*, which was used in present tense constructions with accusative alignment. Kümmel 2013 discusses the Indo-Iranian evidence for the metrical value of the ending of the gen.pl. and its reconstruction in PIE. Considering that the ending of the gen.pl. is metrically disyllabic *-ām* in all Gāthic attestations and in about one third of its attestations in the Rgveda, he argues that in all stem classes of PIE and PIr. the ending of the genitive plural involved an intervocalic laryngeal (PIE *\*-oHom* or *\*-eHom*) which is responsible for the disyllabic scansion in Avestan and, partly, in Vedic. A laryngeal had likewise been reconstructed for the ending of the gen. dual by Hoffmann 1976, 561 fn.2 and 599 fn.14, according to whom the laryngeal *\*h<sub>1</sub>* may have spread analogically from the nom.dual to the gen., where it is metrically traceable in OAv. and, in the gen./loc., in Vedic. Kortlandt 1991, 5–6 (= 2010, 155f.) suggests that OAv. attests neuter dual forms with unexpected *-i* (< PIE *\*-i*) instead of *-ī* (< PIE *\*-ih<sub>1</sub>*), although he admits that the evidence is not conclusive. While the Ved. gen./loc. ending *-oḥ* may result from a contamination of the gen. and loc. dual endings, the endings are still distinguished in Avestan. Mahl Zahn 1999 [2000], 219 and fn. 30 and 31 derives the Av. ending of the gen. dual athem. *-ā*, them. *-aiiā* (with *-ai-* from the pronominal inflection) from Indo-Iranian *\*-Hās* and points out that in the Av. metrical texts, forms of the loc. dual provide no evidence for a laryngeal in the OAv. ending athem. *-ō* < *\*-au*, them. *-aiiō*. Skjærvø 2007, 322–327 discusses the treatment of the clusters that arise in the forms of consonantal stems, where the stem-final consonant meets with the

initial *\*-b-* of the case suffixes instr.pl. *\*-biš*, dat./abl.pl. *\*-b<sup>h</sup>ia<sup>h</sup>*, dat./abl./instr. dual *\*-b<sup>h</sup>iā*.

### 36. *a*-stems

Tucker 2013 examines the restructuring of vowel quantities of IE *\*o*-grade thematic verbal nouns in Indo-Iranian. She argues that quantities of root vowels were levelled in PIIr. not merely as a result of formal analogies, but because the contrast between short and long root vowels came to be used to distinguish the inherited functions of action and agent nouns.

With regard to the lists of names in Yt 1 and Yt 15, Panaino 2002, 93–98 suggests that the nom.sg. forms with the endings *-a*, *-e* and *-ə* (instead of *-ō*) of *a*-stems, and with *-ə* (instead of *-iš*) of *i*-stems reflect a linguistic reality rather than poor transmission in the manuscripts. According to him, these forms indicate the early stages of break-down of the inflectional system at the time when the Av. canon was fixed and the lists of names, which belong to the widespread genre of *nāmastotras*, came to be incorporated in the Yašts. They testify to a language which Panaino terms “Deutero-Later Av.” (p. 98). De Vaan 2004b, 367f. comments that he has independently come to a similar conclusion and discusses some differences between his and Panaino’s explanations of the various aberrant forms. De Vaan 2003, 446–450 argues that the occasional form of the nom.sg. in *-ə* of *a*-/ah-/an-stems in Yt 1.12–15 and 15.43–48 betrays “a more recent layer of YAv. language”. He suggests that the Av. ending *-ə* in particular would provide independent evidence for the vocalic reflex of *\*-ah* in early Middle Iranian times (p. 450), while he attributes the spelling *-a* instead of expected *-ō* in the nom.sg. of *a*-stems to a confusion with the nom.sg. of stems with suffix *-tar* (p. 446). Kümmel 2007, 276 suggests that rather than being a Western Middle Iranian vestige in the language of the Avesta, the ending *-ə* might be due to the influence of Eastern Middle Iranian languages such as Bactrian or Sogdian, where the reduction of *-ah* > *-i* might have happened via *-ə(h)*. According to Skjærvø 2005, 203–205, the expression *āhūire mazda* in Y 60.11 (= 71.29) represents the otherwise unattested YAv. loc.sg. *\*ahuire mazde\**, from Proto-Av. *\*ahurai mazda’i\**, of the divine name *ahura- mazdā-*.

Pirart 2000, 378ff. discusses the use of the ending *-ā* for the neuter pl. of thematic stems. Hock 2014 interprets the numerous instances as indicating that loss of gender distinction had already started in YAv. The fact that the neuter plural could be formed like the fem. plur. of a long *ā*-stem would point to the existence of a new congruence class of fem./neuter forms in the plural.

Kellens 1996, 53 considers the forms *aēśma/aēśmi* in Y 7.2 and *haomi*, which most manuscripts transmit in Y 7.3, to be corrupted forms of the expected acc.pl. *aēśmaq* and *haomq* respectively. Kellens 1997, 131 revises his earlier proposal and

suggests that *aēsmi* and *haomi* rather point towards the acc.pl. forms *aēsmā* and *haomā* because the vowels *i*, *u*, *ǎ*, *e* frequently interchange with one another, but rarely alternate with those of the group *a*, *o* and *q*. According to him, the forms *aēsmi* and *haomi* preserve vestiges of the older acc.pl. form in *-ǎ*, which had escaped normalisation as *-q*. The latter ending *-q* of the acc.pl. instead of expected *-ǎ* (< PrIr. *\*-anh*) has been explained by Hoffmann 1970, 189 (= 1975, 276) as a preferred representation of the nasalised form *-ǎ̃* of the vowel *-ǎ*, occurring after a nasal consonant.

Albino 2001 studies the two final datives in *-xiiiāi*, which are attested in the forms *auuaxiiiāi* and *rafəno.xiiiāi* in Y 58.7 and Yt 10.78. He notes their syntactic function as final datives, but rejects Bartholomae's 1904, 179 and 1510 analysis as dat.sg. of a neuter stem *\*-ah-ja-* and Hoffmann & Narten's 1989, 53f. and 81 fn.13 explanation as dat. sg. of a fem. stem *\*-ah-ǎ̃i*. According to Albino, the Av. forms in *\*-ǎ̃i* were remodelled from Indo-Iranian final datives formed with a suffix *\*-ǎ̃*, which is preserved in its original form in Ved. final datives in *-yā̃* but whose origin is obscure.

### 37. *i-* and *u-* stems

With reference chiefly to the inflection of Indo-Iranian *u*-stems, in particular Av. *parəsu-* 'rib' (attested in form *parəsui* in FiO 3g = Klingenschmitt 1968 no. 184), *ratu-* 'time (-unit); model', *pərətu-* 'ford' and *pitu-* 'food', Tremblay 1998 reconstructs an amphikinetic (or, in his terminology "acrokinétique ou rhizokinétique") inflectional type according to which the accent shifts between the root syllable in the nom. and acc., and the case endings in the gen., dat. and instr., while the unaccented stem-forming suffix *-u-* remains unchanged in the zero grade throughout the paradigm. Widmer 2004, 56–61 and 71, however, considers the positing of a separate inflectional type as uneconomical, and questions the validity of Tremblay's examples because the features on which Tremblay's argument is based are also found in proterokinetic and acrostatic inflectional paradigms. Kümmel 2014, 165, 167 draws attention to the zero grade suffix in the weak cases of *pərətu-* and *ratu-*.

Tremblay 1996, 214; 1999a, 165f. §117 and §175 analyses YAv. *xruui.druuō*, *bāzuuō*, and *rašnuuō* as forms of the instr.sg. in *\*-ay-H* from *u*-stems, built like genitives in *-aōš* with full grade suffix and zero grade ending. Rather than interpreting these forms as loc.sg. functioning as instr.sg., as Bartholomae 1895–1901, 229, §407 thought, Tremblay suggests that they represent genuine instr.sg. forms and entail the development *-uuō* < *\*-ay* < *\*-ayH*. Kümmel 2014, 168 attempts a phonetic explanation of the processes involved in the genesis of these instr. forms in *-uuō* by suggesting that the word-final laryngeal only seemingly failed to undergo vocalisation in so far as *-i* after *-y-* was labialised and merged with the preceding labial consonant, entailing the development *\*-ay-H* > *\*-ay-i* > *\*-ayu* > *\*-ay*. Skjærvø 2005 surveys the formation of the loc.sg. of *u*-stems and observes that the ending *-ā̃* is confined to the

manuscript group of the Persian Vidēvdād Sāde. He discusses in greater detail alleged loc.sg. forms in *-ō* and suggests that most of these forms arise from textual corruptions.

Testen 1994 discusses the causes for the incomplete analogical spreading of *-ŋ-* in the paradigm of *u*-stems, in particular *\*ahu-* ‘life’, *\*vahu-* ‘good’ and *\*dahju-* ‘land’. While Hoffmann 1976, 599f. fn.14 and Hoffmann & Narten 1989, 49–40 explain the incomplete analogical spreading of the nasal through the paradigm of *u*-stems with reference to preventive dissimilation before a nasal in the following syllable, Testen suggests that the stem with *-ŋ-* expanded to the entire paradigm but was blocked in forms that involved the OIr. long vowel *\*ū*, the clearest of his examples being OAv. *vohū* (instr.sg.), *vohū* (nom.pl.ntr.), *daxiiu* (Yt 10.117, nom./acc.du.). Moreover, the distribution would reflect a shift from a phonologically motivated alternation pattern to one that was governed by morphosyntactic alternation. De Vaan 2013 puts forward a phonetic explanation for the nasalisation of *h* before *ā*.

Cantera 2007 examines the acc.sg. forms of *i*- and *u*-stems with a full or lengthened grade stem-forming suffix. In contrast to Ved., where this type of formation is found in only one stem (*sákhi-*), the Av. *i*-stems *haxi-*, *kauui-*, *rayi-* form their acc.sg. in *-āim*, *-aēm*, *-qm* respectively. Moreover, Av. attests acc.sg. forms in *-āum*, *-aōm*, *-qm* of the *u*-stems *°bāzu-*, *nasu-*, *hi9u-*, *dajhu-*, *pərəsu-* and, as hapax legomena, of the stems *zāēnu-*, *garəmu-*, *frazdānu-* and *frādaṭfšu-*. Referring to Stang’s law and to Tremblay 1998, 202, who argues that the acc.sg. OAv. *hi9qm* (nom. sg. *hi9āuš*) ‘companion’ shows the same treatment as Grk Ζῆν < *\*dīéum*, Cantera concludes that the regular outcome of the development of both IE *\*-eīm/-oīm* and *\*-eum/-oym* is the acc.sg. ending *-qm*, which is attested in *rayqm* (Vd 1.15) and *hi9qm* (Y 34.10).<sup>1</sup> By contrast, he suggests that the acc.sg. endings *-āim*, *-aēm* of *i*-stem and *-āum*, *-aōm* of *u*-stems, result from analogical processes. In particular, the forms in *-āim*, *-āum* may derive their lengthened grade suffix from forms of the nom.sg. and pl., while those in *-aēm*, *-aōm* are built by analogy on weak cases with predesinential full grade suffix. With regard to the stem *vaiiu-* ‘wind’, Remmer 2011 reconstructs the form of the nom. sg. as *\*uāiāuš* < Indo-Iranian *\*HyaH-iāu-š* and of the acc.sg. as *\*uāiām* < Indo-Iranian *\*HyaH-iāu-m*. Although in Av. the paradigm was remodelled after *ju*-stems such as *pāiiu-* and *tāiiu-*, she retrieves a trace of the original inflectional pattern in the acc.sg. form *vaiiqm*, which is attested in Ny 1.1. She argues that the form *vaiiqm* shows the development of *\*-āu-m* > *\*-ām* after Lex Stang. Moreover, in reconstruct-

<sup>1</sup> It should be noted, however, that in Y 31.8, which Cantera, 2007, 10 adduces as a second attestation, the form *hi9qm* is not found in the manuscripts but only as the result of a conjecture by Kellens & Pirart 1988–1991 I 51, 114, III 66. Most manuscripts in fact transmit the form *hai9īm*.

ing such an ablaut pattern in the paradigm of the noun *vaiiu-* ‘air, wind’, Remmer establishes the conditions for the YAv. shortening of prevocalic *\*-āi-* > *-ai-* in the pretonic position (on which see Hintze 2014, 22), thus providing an explanation for the short root vowel in the Av. noun *vaiiu-* in contrast to its Ved. counterpart *vāyú-*.

Hintze 1989, 38f.; 1991, XVIII and 1994, 60 comments on the spelling of the endings of the acc.sg. and pl. in *-ūm*, *-ūs*, *-īm*, *-īš* in the Yašt manuscript F1, where in word-final syllables, the *i* and *u* usually appear as short vowels, although there may be differences between different Yašts. With regard to the liturgical and exegetical manuscripts of the Yasna, Visperad and Vidēvdād, Cantera 2016 concludes that in both Iranian and Indian mss. the ending of the acc.sg. of *u-* and *ū-*stems is usually spelt *-ūm* and that in Iranian mss. the spelling *-ūm* contrasts with *-um* in the acc.sg. of *ua-*stems. By contrast, the distinction would be lost in the Indian mss., where the acc.sg. of *ua-*stems is likewise spelt *-ūm*. Cantera suggests that the observable spelling alternations between *-ūm* and *-um* in the mss. reflect the pronunciation of the syllables at different times and places in the oral tradition of the Avesta.

Tremblay 1997, 165 fn.14 regards the unique form *frauuašīš* in Y 37.3 from the *i*-stem *frauuaši-*, as the genuine form of the acc.pl. Hintze 2007, 181 surveys the scholarly debate about this form, providing contextual and syntactic support for the interpretation of *frauuašīš* as the regular acc.pl. of the *-i*-stem. De Vaan 2006 examines eight YAv. forms in *-ūs* and *-uš* have been taken as evidence for lenition of *-b-* in the ending *\*-ubiš* of the instr.pl. On the basis of the relevant text passages, he argues that the interpretation as instr.pl. of the forms in question is untenable with the exception of N 57 *\*pituš* and *vīzuš* and Y 12.4 *auuaḡhūš* and *yātuš*, which would present the only reliable evidence for the contraction of *\*-ubiš* to *-ūš*.

### 38. *ī*-stems

Attestation of the *vr̥kī-*declension in Old Iranian is scarce but certain, and is discussed by Mayrhofer 1980. Sims-Williams 1979, 345 retrieves residual evidence in the Sogd. plur. suffix *-yšt*, which is attached to certain masculine light-stem nouns denoting animals or persons. Deriving *-yšt* from OIr. *\*-īš-tā-*, he analyses the ending as a suffix conglomerate in which the fem. abstract suffix *\*-tā-*, with collective sense, is attached to the form of the nom.sg. He thus identifies the equivalent of the Ved. nom.sg. *vr̥kīh* in the Sogd. dir.pl. form *wyrqyšt* ‘wolves’ < *\*vr̥kīš-tā*. In YAv., by contrast, this particular noun has the stem *vāhrkā-* (Lat. *lupa*) and inflects after the *ā*-declension. De Vaan 2003, 272–273 and 581 surveys the Av. evidence for *vr̥kī-*declension and proposes to interpret *narəpīš* and *rajiš* in Y 53.9 as nom.sg. forms of *ī*-stems. According to Remmer 2010 [2011], 159, the gen.sg. forms in *ḡḡḡriiō*, attested in the eschatological female personal names *srūtaḡḡḡḡrī-*, *vanhu.ḡḡḡrī-*, *ərədaḡḡḡḡrī-* in

Widmer 2005, 192–193 explains the IE origin of the  $vṛkī̃$ -formations by way of hypostasis from predicative instr.sg. forms with associative function ( $*-i-h_1$  ‘being together with X’). He posits the derivational chain  $*uḷk^w-e/o-$  m. ‘wolf’ :  $*uḷk^w-ih_1$  ‘(the state of) being together with a wolf’;  $*uḷk^w-ih_1-$  ‘the one who is together with a wolf, she-wolf’. Stüber 2007, 5–6, admits that this explanation is semantically plausible and provides an elegant solution to the absence of suffixal ablaut of the  $vṛkī̃$ -declension. She objects to it, however, on the grounds that the assumption of an intermediary abstract noun in  $-i-$ , which is normally derived from an adjective, as the derivational basis of the  $vṛkī̃$ -declension, conflicts with the direct link between  $vṛkī̃$ -stems and thematic substantives. Arguing for functional and formal identity of the suffix of both  $vṛkī̃$ - and  $devī̃$ -stems, she identifies the laryngeal of both inflectional types as the collective suffix  $*-h_2$  and postulates a composite suffix  $*-i-h_2$ . The latter would have originated in the loc.sg. of athematic nouns and denoted a ‘multitude of what is at X’. By way of hypostasis, the nom.sg. would then have been formed with the “individualizing” nom.sg. ending  $-s$  to denote ‘an individual that is at X’ (pp. 9–11). This explanation is supported by the old function of  $vṛkī̃$ -stems to denote ‘belonging’, and by their indifference to gender, as emerges from instances where the suffix is attached to a noun denoting an object rather than a person, such as  $*roth_2-ó-$  ‘chariot’ (Ved. *rátha-*, Av. *ra9a-* m.). The derivative could therefore also refer to a male individual, e.g.  $*roth_2-ih_2-s$  ‘the one who is at a chariot, charioteer’ (Ved. *rathī̃-*, Av. *rai9ī-* m.).<sup>3</sup>

3 Stüber 2007, 11. The Av. equivalent of the Ved. acc.sg. *rathyàm* from the stem *rathī-* was identified by Humbach 1952 [1956], 26 in the form Y 50.6 *rai9īm*. Bartholomae's 1904, 1508 interpretation of *rai9īm* as the acc.sg. of the adj. *ra9iia-* ignores the form's trisyllabic value.



### 39. *n*-stems

The Av. evidence for *n*-stems is taken into account in Stüber's 1997 discussion of the ablaut of neuter *n*-stems in IE and in Schneider's 2010 survey of *man*-stems in Ved. (esp. pp. 77–79). García-Ramón 2009, 82 argues that Av. neuters in *-man* formed from verbal roots are *nomina rei actae* rather than *nomina actionis* and that they have nominal rather than verbal rection. Stüber 1998, 45 finds a parallel to the OAv. gen.sg. ending *-māng* < Indo-Iranian *\*-man-s* with full grade suffix and zero grade case ending in the form of the Proto-Celtic gen.sg. ending *\*-mes* < *\*-men-s*. The abl.sg. with the ending *\*-d*, which is formed in YAv. parallel to the gen.sg. in *\*-man-s* (Hoffmann & Forssman 2004, 143), is present in the formula *frastərətāt paiti barəsmən* 'at the sacrificial strew spread out' (Y 57.2, A 4.5, A 4.7, Yt 10.91, Yt 10.137, Yt 15.2, Vd 9.45), where the accompanying attribute *frastərətāt* unequivocally identifies *barəsmən* as the abl.sg. De Vaan 2001 provides a second example by analyzing the YAv. form *vaēsmanəda* in Yt 10.86 as the abl.sg. extended by the postposition *-a* of the neuter *man*-stem *vaēsman-* (= Ved. *vésman-*) 'house, abode'. Hintze 2007, 177–181 surveys the debate on the OAv. forms *nāmam* (Y 38.3) and *nāmənī* (Y 37.3) and endorses the view that they represent variant forms of the nom./acc.pl. of *n*-stems, the former built with lengthened grade suffix, the latter with both lengthened grade suffix and ending *-i* < *\*-h₂*. Hardarson 2005 discusses the formation in IE of the nom.sg. of m./f. *n*-stems and of the nom./acc.pl. of neuter *n*-stems. According to Tremblay 2003, 240 fn.32, the instr.sg. of proterokinetic *-man-* and heteroclitic *-uuar/ uuan*-stems ends in *-mā(i)nī* and *-uuā(i)nī* respectively, while the loc.sg. has a lengthened grade suffix.

Av. plural forms in *-iš* formed from *n*-stems continue to be the subject of debate (for older literature see Tichy 1985, 150 with fn.2). Pointing out that neither *n*-stems nor heteroclitics in fact attest the expected instr.pl. form in *\*-abiš* (< IE *\*-b<sup>his</sup>*), Tichy 1985, 160–161 argues that the form *sūnīš* in Vd 14.1, Vd 13.50 and 51 is the instr.pl. form that came to be used as nom./acc.pl. to refer to both male and female dogs. Along similar lines Narten 1985, 177–178 (= 1995, 302–303) makes the case that the OAv. plural form *nāmənīš* (Y 51.22) is a genuine instr.pl. employed in YAv. as nom./acc.pl., while Skjærvø 2007, 322–324 regards the form *nāmənīš* in Y 51.22 as the regular YAv. instr.pl., suggesting that the entire last verse line of the Gāthic hymn is in YAv. In his view, the instr.pl. of *man*- and *uuan*-stems has the ending *-īš*, which would replace the original ending *\*-uiš* < *\*-biš* between vowels. Tremblay 2008, 20 surveys phonetic explanations that have been proposed, in addition to those discussed by Kuiper 1978, 84f., for the interpretation of the form *nāmənīš* as an instr.pl. While De Vaan 2003, 271 rejects any derivation of the ending *-īš* < *\*-ibiš* on the grounds that *\*b* should have left a trace in the form of either *-β-* or *-uu-*, Tremblay 1997, 165 fn.14 regards all alleged OAv. and YAv. instr.pl. forms in *-īš* from *n*-stems (*sūnīš*,

*nāmānīš*, *ašaonīš* Vr 21.3, P35) as genuine acc.pl. forms. But his proposal that *-īš* results from the collective ending *\*-h<sub>2</sub> > -i* recharacterised by means of the acc.pl. ending *-ns*, i.e. *\*-i-ns > -īš*, fails to convince. For the form *frauuāšīš*, see p. 7, no. 37 above: *i-* and *u-*stems (at the end).

#### 40. *r*-stems

Tichy's 1995 study of the Ved. agent nouns formed with the suffix *-tar-* takes much of the Av. evidence into account, particularly with regard to morphological and syntactic features (pp. 31–84). Hintze 2007, 247–249 surveys the debate on the phonetic processes that led to the acc.pl. ending OAv. *-ərāš* (e.g. Y 38.5 *mātərāš*<sup>o</sup>, *nərāš*), YAv. *-ərāš* (e.g. *nərāš*) < *\*-r'-ns*. The latter is an Indo-Iranian innovation analogous to the acc.pl. of *i-* and *u-*stems, IE *\*-i-ns* and *\*-u-ns* (OAv. *ašīš*, OAv., YAv. *gairīš*, OAv. *xratūš*, Gothic *gastins*, Grk dial. *πόλινς*), as compared to IE *\*(t)ṛṇs* continued, for instance, in the Greek acc.pl. *πατέρας, ματέρας* 'fathers, mothers'.

#### 41. *s*-stems

In a study of the primary *s*-stems in Indo-European, Stüber 2002 distinguishes the three morphological categories of neuters, second term of compounds and (rare) masc. or fem. collectives. Surveying the Indo-Iranian evidence (pp. 40–45), she notes that *s*-stems are less productive in Avestan than in Vedic. Most of them are action nouns, some of which are attested within the Caland system (e.g. *stauuah-* 'thickness', *barəzah-* 'height', *mazah-* 'size'). In addition, there are pairs of uncompounded *s*-stems functioning both as neuter nouns and as adjectives, such as *baodah-* 'perception' and *baodah-* 'perceptive', *rādah-* 'liberality' and *rādah-* 'liberal'.

Stüber 2000a, 155, 160 interprets the amphikinetic *s*-stems as collective derivatives from neuter proterokinetic *s*-stems. For the nom./acc.pl. of neuter *-ah*-stems an IE collective form *\*-ōs > Indo-Iranian \*-ās* is posited to account for the Av. ending *-ā*. In addition, an equivalent of the Ved. nom./acc.pl. *vārcāmsi* has been seen in the OAv. acc.pl. *varəcā.hī-cā/varəcā.hīcā* (Y 32.14), which was thought to represent the only instance of an Av. nom./acc.pl. of an *ah*-stem in *\*-āh-i* instead of expected *-ā*.<sup>4</sup> However, in agreement with Kellens 1974, 88–89, Gippert 2002, 184–187 suggests that in Y 32.14 *varəcā* is the regular acc.pl. of *varəcah-* 'splendour' while *hīcā* is the instr.sg. of the root noun *hic-* 'pouring'.

#### 42. *iš*-stems

Stems in *-iš*, such as OAv. *təuuiš-* 'force' from the IE root *\*teuḥ<sub>2</sub>* 'to become strong', YAv. *stairiš-* 'strew' from *\*sterh<sub>3</sub>* 'to spread out', are explained by Schindler

---

4 Bartholomae 1904, 1367; Hoffmann & Forssman 2004, 155.

1975 as originating from formations in which the zero grade variety of the suffix *\*-es-/-os-* is attached to roots ending in a laryngeal. By contrast, Stüber 2002, 21, explains stems in *-iš-* as resulting from a contamination of *i-* and *s-* stems.

#### 43. *t*-stems

Vijūnas 2009, 108–138 surveys nominal formations in Indo-Iranian derived with suffix *-t-* or *-Vt-* directly from verbal roots. Suggesting that in PIE the suffix *\*-t-* formed verbal abstracts (p. 134), he distinguishes two groups, derivative *t*-stems and enlarged root nouns. Derivative *t*-stems, such as *\*nók<sup>w</sup>-t-* and *\*léuk-ot-*, are formed with the derivational suffix *\*-t-/-Vt-*, while in enlarged root nouns, such as Indo-Iranian *\*stú-t-* and *\*dajūa-stú-t-*, the *\*-t-* enlarges the root. Regarding the derivative *t*-stems as primary to the enlarged root nouns, Vijūnas constructs a scenario for the processes by which in Indo-Iranian the derivational suffix *\*-t-* came to be re-interpreted as a root-enlargement, and became characteristic of roots ending in the short vowels *\*-i*, *\*-u*, and *\*-r* (pp. 131–133).

#### 44. Demonstrative pronouns

Hintze 2007, 119–123 surveys deixis and forms of the nom.sg.m. of the pronoun OAv. *huuō* (IE *\*sa-ū*), YAv. *hāu* (IE *\*sā-ū*). The latter is morphologically the form of the nom.sg.f., but functions in YAv. as nom.sg. of both m. and f. The Sogdian article *xw* (< *\*hay*) reflects this indifference to the distinction of gender, in that it came occasionally to be used with fem. as well as masc. nouns. Yakubovitch 2012, 496 endorses Wendtland's conclusion that the occasional use of the Sogdian definite article masc. *xw* for the fem. is a vestige of the PrIr. lack of distinction between masc. and fem. in the nom.sg. of the far-deictic pronoun. Hoffmann & Forssman 2004, 86, §50d suggest that the development of *\*(-)ahīā* > *(-)ahjhe* instead of *(-)ahe* in the gen.m./ntr. and loc.sg.fem. of the interrogative, relative and demonstrative pronouns could be dialectal, while de Vaan 2003, 401–404, 614 argues for a linguistic explanation.

Pirart 1997a finds no evidence in the Younger Avesta for the function of the pronoun *hīm* (Ved. *sīm*) as a particle and concludes that *hīm* is probably not used as a particle in the Older Avesta either. Kellens & Pirart 1997, 44–45 consider the use of the form of the nom.sg. of enclitic pronouns to be an archaic trait of the OAv. language, and possibly of Av. in general. They review various translations of Y 30.3, which is widely regarded as the “dualist key passage” (Gershevitch 1995, 16), and describe the function of the pronoun *hī* in the stanza's second verse line *manahicā vacahicā šīiaoθanōi hī vahiiō akəmcā*, as posing the stanza's “problème capital” (1997, 46). In their analysis *hī* is the nom. dual ntr. of the enclitic pronoun *hi-* and derives its gender from *šīiaoθanōi*, which must necessarily be the first word of a new independent clause. They translate the relevant words of Y 30.3 line 2 as ‘au moment

de l’acte, il y a deux (actes), le meilleur et le mauvais’ (1997, 48–50). Their parsing of *hī* is in agreement with Hoffmann & Forssman 2004, 162, who, however, regard the form as tonic. Ahmadi 2013 critically reviews the interpretation of Y 30.3 by Kellens & Pirart and other scholars. Pointing out that *hī* can refer only to a dual feminine or neuter antecedent (p. 239), Ahmadi 2013, 245f. suggests that the “rule” of the obligatory second positioning of the enclitic in the sentence interacts with poetic and formulaic factors. According to him, the syntagm in Y 30.3bb’ *hī vahiiō akəmcā* is an elliptical construction and applies to each of the triad members *manah-*, *vacah-*, *šiiəoθana-*, from which the form *hī* derives its neuter gender. Accordingly, Y 30.3b is short for *\*manahī hī vahiiō akəmcā vacahī hī vahiiō akəmcā šiiəoθanōi hī vahiiō akəmcā* ‘in area of thought, two (kinds), one good and one bad; in area of speech, two (kinds), one good and one bad; in area of action, two (kinds), one good and one bad’; see also below no.79: Studies of individual words s.v. *-cā*.

De Vaan 2004a discusses pronominal gen.pl. forms such as *kəmcī* and *anīqəm* in the Vidēvdād with an unexpected ending *-qəm* instead of *-aēšqəm*. Regarding such forms as innovations, he argues that they were created analogically on the model the gen.pl. of the dem. stem *a-/i-*, *aēšqəm*, which was re-interpreted as belonging to the dem. stem *aēša-*. He is able to support this explanation with the fact that the gen.pl. *aēšqəm* and the nom.sg.fem. *aēša* occur in textual proximity in Vd 3.14 and in the expression *kuua aēšqəm aēša druxš*, which is repeated 57 times in Vd 8.41–69.

#### 45. Personal pronouns

Gotō 1999,139–141 analyses the dat.sg. forms *maibiiō* und *taibiiō* as resulting from the combination of *maibiiā*, *taibiiā* with the enclitic particle *u*. Kümmel 2013, 196 suggests that the gen.pl. forms of the pers. pronoun, Indo-Iranian *\*asmākam*, *\*uśmākam*, historically represent petrified forms of the sing. of old adjectives *\*asmā-ka*, *uśmā-ka*- denoting belonging.

#### 46. Pronominal adjectives

De Vaan 2005a argues that pronominal possessive adjective *\*hūa-* is continued in inflected forms of OAv. *xʷa-* ‘one’s own’ and in YAv. as first term of compounds and in the adv. *xʷatō* (< *\*hūa-tah*) ‘by oneself’. In addition, in YAv. only the inflected possessive adj. takes the form *hauua-* ‘own’, while the variant *huua-* belongs to inferior mss. He suggests that YAv. *\*haua-* replaces *\*hūa-* and represents an innovation analogical on personal and demonstrative pronouns with initial *\*ha-* (see also no.79 below s.v. *hauua-*). Sims-Williams 1997 argues that in pronominal adjectives in *-uuant-* such as Av. *auuant-* ‘so much’, *auuauuant-* ‘that much’, *aētauuant-* ‘such’ (Ved. *etāvant-*), *yauuant-* ‘as much as’ (Ved. *yāvānt-*), the suffix *-uuant-* is attached to the inflected form of the nom./acc.pl. ntr. in *\*-aH* of the respective pronouns.

#### 47. Comparative

Av., like Ved. and Greek, has two sets of suffixes for the comparative and the superlative, one more archaic (comparative *\*-ies-/ios-*, superlative *\*-is-te/o-*) and the other more recent and productive (*\*-tero-*, superlative *\*-tmtō-*). Rau 2014 investigates the morphological history of the primary comparative formed with suffix *-ies-/ios-* and its ties to the Caland system. Widmer 2004, 149–152 suggests that the sequence *-xii-* in the OAv. (Y 31.2) comparative nom.sg.m. *vaxiiā* (< *\*uāhīāh*), as compared to *-hii-* in the nom./acc.sg.ntr. *vahiiō* (< *\*uāhīah*, Ved. *vāsyah*), indicates a shifting accent. According to him, in the inflectional paradigm of m./f. comparative forms, the accent shifted from the root to the suffix in the acc.sg. according to the *\*k<sup>w</sup>etūóres-* rule and from there spread analogically to the nom.sg. The neuter, by contrast, inflected according to the acrostatic paradigm, with the accent fixed on the root.

#### 48. Superlatives

Tucker 1998 and 2009 distinguishes two types of Old Iranian superlatives in *-išta-*. Those of the first group, such as OAv. *aojišta-* ‘strongest’ alongside the positive *ugra-* ‘strong’ and *sraēšta-* ‘finest’ alongside *srīra-* ‘fine’, have “Caland” adjectives as the positive term and often no verb at all. Their meaning is intrinsically adjectival. Those of the second type, represented by *bairišta-* ‘best at bringing, carrying’, are deverbative and formed on the basis of a verb stem. While the first group constitutes an inherited but moribund category, the second becomes to some extent productive within Iranian and displays morphological developments. In particular, the root vocalism of the superlative corresponds to that of the verbal stem, e.g. (*paiti*.)*dārišta-* Yt 11.2 ‘best at resisting’ besides causative present *dāraiia-* ‘to hold’, while the superlatives *jañmišta-*, *vījañmišta-*, *dāhišta-*, *paošišta-* and *nasišta-* are parallel new formations linked to thematic aorist stems. While Tucker argues that the process of deriving superlatives from verb stems became productive only in Younger Av., Hintze 2007, 133–144 projects the process back to OAv. by suggesting that Y 36.3 *vāzišta-* is deverbative and derives its lengthened grade from the transitive-causative stem *\*vāzaiia-*, Ved. *vājāya-* ‘to cause someone to be vigorous, to enliven, invigorate, arouse’. The meaning of the adj. is accordingly ‘most invigorating, most enlivening’. Surveying the debate surrounding *vāzišta-* and the various contexts in which it occurs, she suggests that in Y 36.3 it expresses the idea that when inhabited by Ahura Mazda’s life-giving force, *spənta- mainiiu-*, the ritual fire is seen as ‘providing life-force’ and energy (*vāzišta-*; cf. no. 79 below s.vv. *spənta-*, *vāzišta-*). García-Ramón 2010 examines Av. [<sup>o</sup>] *bairišta-*, its Homeric cognate *φέριστος* and Hitti. *nakkī-* ‘heavy, important’ and reconstructs a suppletive system of nominal forms derived from the verbal roots *\*bher-* ‘to carry’ and *\*hinek-* ‘to receive, take’ respectively. He suggests that the latter developed the meaning ‘to carry’ under the influence of *\*bher-*.

Dieu 2011, 163–167 argues that Av. *bairišta-* and Grk φέρειστος describe the gods as divine dispensers of gifts (“les plus apporteurs”) and rejects (p. 172 fn. 185) Bader’s 1999, 350–351 interpretation as an original epithet of warriors (in the sense of carrying booty), while Goldman 2015, 128–134 discusses the attestation of *bairišta-* alongside the superlatives *vaēdišta-*, *vidcōišta-*, *\*parakauuistəma*, *nijayništa-* and *nasišta-* in Yt 12.7–8.

#### 49. Numerals

Gotō 2013, 60–65 provides a comprehensive survey of numerals in Ved. and Av., and Emmerick 1992a, adopting an IE perspective, discusses in detail cardinals, ordinals, multiplicative adverbs and adjectives, fractions, distributives, collectives and the order of composite numerals in Old, Middle and New Iranian languages. Schmitt 1994 examines the cardinal numbers ‘ten’ to ‘nineteen’ from the oldest to modern Iranian languages, while Blažek 1999e discusses numeral systems in non-Indo-European (pp. 1–140) and, especially, Indo-European languages (pp. 141–324). Bringing together a large amount of material, the work covers the numerals ‘one’ to ‘ten’, ‘hundred’ and ‘thousand’, and includes reprints of studies of individual numerals in IE languages, in particular of ‘one’ (1999), ‘three’ (1999a), ‘six’ (2000), ‘eight’ (1998), ‘nine’ (1999b), ‘hundred’ (1999c) and ‘thousand’ (1999d). De Vaan 1997a [2000] reviews Blažek’s attempts at identifying the ways in which IE numerals have been formed. Carruba 1999 studies the numerals “1” in IE, while Miyakawa 2002 [2006] examines the causes for the long *-ā-* in the numeral for ‘five’ in *pañcāsata-* and when followed by an enclitic, as in YAv. *pañcāca*, and suggests that the long vowel is a reflex of an old collective. Viredaz 1997, 131–135 considers the initial velar of Av. *xšuuāš* ‘six’ to be an innovation that occurred in the common Proto-Iranian period. Rau 2009, 11–63 discusses the derivational history of the decade numerals ‘20’ to ‘90’ from an Indo-European perspective.

In a study of mixed fractions in Iranian, Panaino 1997, 98–103 queries Hoffmann’s 1965: 251f. (= 1975: 187f.) proposal to analyse a stem such as *θrišuuā-* ‘a third’ as an adjectival derivative with suffix *-ua-* from the multiplicative adverb *θriš* ‘three times’. He considers Hoffmann’s assumption of a semantic development from ‘three times’ to ‘a third’ to be implausible. Like Hoffmann, however, Panaino elaborates on the old idea that the loc.pl. played a role in the way fractions are denoted in Iranian languages. Suggesting that the derivational process started in fractions where the numerator was one and the denominator many: ‘one in three (seven, eight)’, he argues that the adjectives *θrišuuā-* ‘a third’, *haptayhuua-* ‘a seventh’ and *aštayhuua-*

‘an eighth’<sup>5</sup> arose by hypostasis from the form of the loc.pl. of the cardinals *9ri-*, *hapta-* and *ašta-* respectively.

### 50. Verbal Morphology

Kellens 1984 remains the most comprehensive treatment of the Av. verb and is supplemented by his list of verbal roots and forms (Kellens 1995) and the addenda and corrigenda by Tremblay 2008, 21–33. Gotō 2004 discusses a range of verb forms in Y 9.

### 51. Personal endings

Tremblay 2002 [2006] examines the history and prehistory of the Indo-Iranian *r*-endings. Noting that in both Ved. and Av. the ending *\*-r(š)* is found in the active voice, while *\*-rai*, *-ram* is confined to the middle voice, he examines the active ending *-āra* in the Middle Iranian languages Khotanese and Choresmian and in Modern Iranian Yaghnobi. With regard to the 3pl.pres.opt.act. of thematic verbs, Skjærvø 1998, 191 and 2007a, 321–328 draws attention to forms in the Iranian Vidēvdād Sāde and Pahlavi Vidēvdād with the ending *-aiiaēn*. Since they not only represent the expected outcome of *\*-aija-i-ant* but are also found in the better manuscript tradition, he suggests that they are to be preferred to the variant forms ending in *-aiiān*, which have for no good reason found their way into the Av. grammar books in spite of the fact that they belong to the inferior tradition of the Indian Vulgate.

### 52. Thematic and reduplicated presents

Hill 2007 studies Indo-Iranian stems with accented thematic vowel and zero grade root of the type Ved. *syjá-*, Av. *harəza-* (Indo-Iranian *\*syj-* ‘to release’) and, with nasal infix, Ved. *kṛntá-*, YAv. *kərənta-* (Indo-Iranian *\*kṛt-* ‘to cut’). The morphological type is traditionally referred to as “aorist-presents” (“Aorist-Präsentien”) because the stems without nasal infix are found in the aorist as well as in the present tense system. The work examines all attestations of this class in the oldest Ved., Av. and Old Persian texts with a view to establishing their morphology, semantics and syntactic functions. Hill argues that historically some of the thematic stems derive from older zero grade root present and aorist forms (summary on pp. 290–292), while thematic nasal-infix presents go back to athematic nasal presents, such as Ved. *vindá-* from *vinád-* (Av. *vinad-*, *viṇd-*) ‘to find’.

Heenen 2006 provides a detailed account of the Indo-Iranian desiderative. Focusing on the semantic roles of the constituent components of the category, he argues that the desiderative had originally a more prospective rather than desiderative function.

---

5 The latter two are attested only in FiO 1 (= Klingenschmitt 1968 nos. 20 and 21).

While the work has a clear focus on Ved., the relatively few Av. forms are occasionally, rather than systematically discussed. Heenen’s suggestion that the reduplication was the original marker of the desiderative meaning and that the suffix *-sa-* was added later on the analogy of the aorist subjunctive, remains, as Kümmel 2010, 182 comments, rather uncertain. According to Kortlandt 2008, the perfective *-s-* was the oldest component and the thematic *-a-* was added to the reduplicated sigmatic formation.

### 53. *nu-* and nasal infix presents

Steer 2013–4 discusses the relationship between nasal infix and *nu*-presents in an IE perspective. Rather than deriving the latter from the former, as suggested previously, he argues that the nasal-infix *\*-ne-/n-* arose in early PIE by way of a morphological reanalysis of the suffix *\*-ney-/nu-* of older *nu*-presents, from where it spread analogically. In his reconstruction of the prehistoric linguistic developments, *nu*-presents existed as zero grade formations alongside *u*-adjectives. For example, the root *\*d<sup>h</sup>eb<sup>h</sup>* ‘to diminish’ formed the *nu*-present *\*d<sup>h</sup>b<sup>h</sup>-néu-* (Av. *dəbə-nao-iti* ‘cheats, deceives’) alongside the adjective *\*d<sup>h</sup>éb<sup>h</sup>-u-* (Hittite *tepu* ‘little, few’). Subsequently, Steer argues, a secondary derivational connection between the two formations led to the re-analysis of the present stem as *\*d<sup>h</sup>b<sup>h</sup>-né-u-*, as if it was derived from the *u*-adj. *d<sup>h</sup>éb<sup>h</sup>-u-*. This provided a new derivational pattern by which new present stems were formed by inserting *\*-ne-* before the suffixal *-u* of *u*-adjectives. The derivational pattern then spread to verbal roots ending in *-u*, such as *\*kleu* ‘to hear’, pres. *\*kl<sup>h</sup>-né-u-ti*, Ved. *śṛ-ṇó-ti*, Av. *sərəṇaoiti*, and from there to any root, e.g. *\*ieu*-g ‘to yoke’, pres. *\*iu-né-g-ti*, Ved. *yunákti*.

### 54. Intensives

Schaefer 1994, 50–51 surveys the Av. evidence for intensives, of which eight athematic stems have an equivalent in Vedic. Kellens 1984, 194, 195 note 4, interprets the Av. stem *ja-γn-a-* as representing an intensive present stem which was dissimilated from *\*jan-γn-a-* (Ved. *jāṅghan-*), thus separating Av. *ja-γn-a-* etymologically from Grk *πε-φν-ε/ο-*. This interpretation is accepted by Schaefer 1994, 51, but criticised by Strunk 1994, 427 (summarised by Hintze 1999, 108). Hintze 1999, 107–109 argues that the pairs Av. *zīzana-* (pres.), Ved. *jījana-* (aor.), and Av. *ja-γn-a-* (pres.), Grk *πε-φν-ε/ο-* (aor.) represent inherited reduplicated stems originally denoting the mode of action (*Aktionsart*) of verbal plurality (e.g. iterative, distributive, intensive, frequentative). Av. *ja-γn-a-* still shows it in the context of its three attestations, where numerals reinforce the action of repeated hitting. Considering Av. *ja-γn-a-* and Grk *πε-φν-ε/ο-* as etymologically identical, she suggests that in the wake of the development of aspects in Late IE, the former came to be allocated to the imperfective aspect (present), the latter to the perfective aspect (aorist).



### 55. Denominatives

In both Ved. and Av. most denominative verbs are derived with suffix *\*-ja-* from *s*-stems, such as Av. *nəmahīia-*, Ved. *namasyá-* ‘to pay homage, reverence’ from Indo-Iranian *\*namah-* ntr. ‘homage, reverence’. In addition, the two branches provide evidence for denominatives from *a*-stems, such as Av. *arəzaiia-* ‘to do battle, fight’ from *arəza-* ‘battle’ and Ved. *devayá-* ‘to worship the gods’ from *devá-* ‘god’. While Ved. also has denominatives derived from nouns formed with suffixes such as *-na-*, *-ma-*, *-tra-*, which make the nominal character of the base obvious (e.g. Ved. *vasnayá-* ‘to bargain’ from *vasná-* ‘price’), Tucker 2004 notes that Av. provides no evidence for this type. Conversely, she identifies as an Av. peculiarity a small group of YAv. denominative verbs based on thematic stems where the thematic vowel is elided, such as *haomanajha-* ‘to be of good spirit’ (< *\*haymanah-ja-*) from the neuter substantive *haomanajha-* ‘good-spiritedness, happiness’. A further group consists of verb stems which show ambiguity as to whether they are denominal or deverbal. Such is the case with lengthened-grade *-ja*-present stems such as *pairi.kāraiia-* ‘to scatter’. The formation could be explained either as derived from a thematic nominal stem, or as an *-aiia-* present derived from a verbal root with an IE *\*o*-grade, which in an open syllable is regularly continued as *-ā-* in Indo-Iranian after Brugmann’s Law. However, since the conditions for the application of Brugmann’s Law are not met in *pairi.kāraiia-*, as it is based on the root *\*karH* ‘to scatter’ with a closed syllable, Tucker suggests that *pairi.kāraiia-* was created within Av. on the basis of the thematic nominal stem *pairi.kara-* ‘scattering’, with which it forms a *figura etymologica* in Vd 17.6, by lengthening the root vowel and adding the suffix *-ja-*. Avestan thus created denominative verbs that were identical in form to inherited *\*-āja-* presents. Further examples which Tucker adduces include *vāḍaiia-* ‘to chop’ from *vāḍa-* ‘wedge, axe, a tool for chopping wood’ (Ved. *vadhá-* m. ‘weapon’), and *pairi.daēzaiia-* ‘to wall around’ from *pairi.daēza-* ‘surrounding wall’ (p. 553f.). She concludes that in Av. inherited *\*-āja-* presents came to be interpreted as denominatives and supplied a model for new denominative verbs with suffix *-ja-* derived from thematic stems (p. 558).

### 56. Moods

In addition to his 1984 summary, Kellens’s survey in Kellens & Pirart 1988–1991, vol. II 65–69 is the most detailed study of the use of tenses and moods in OAv. Panaino 2015, 54–59 discusses the functions of the subjunctive mood and the primary and secondary endings in the juxtaposed forms in Y 31.5c *yā nōiṭ vā aṇhaṭ aṇhaitī vā* ‘(the things) which either do not exist or (which) do exist’. Av. opt. forms in *-īma-*, *-iṭ* built from full grade roots play a major role in Pinault’s 2015 reconstruction of the origins in PIE of the optative suffix, which he suggests arises from a serial verb con-

struction of an *i*-passive aorist of impersonal meaning and the inflected injunctive form of a verbal root *\*h<sub>1</sub>ih<sub>1</sub>-* ‘to go’. According to his proposal, the OAv. form *srəuuīmā* goes back to Indo-Iranian *\*črāyē-Hīma* < PIE *\*k<sub>1</sub>lou-i* + *HiHmé*, literally meaning ‘one hears; we can go (for it)’ = ‘we may listen’, with shortening of *\*-āyē-* > *\*-ayē-* in the fourth syllable from the end of the word after the merging of the two forms into one verb (pp. 171–173). It is, however, doubtful that the form *srəuuīmā* can carry the weight of the argument because the alleged shortening in the form *srəuuīmā* is poorly supported. Moreover, at its single Gāthic attestation (Y 28.7), *srəuuīmā* is metrically trisyllabic, while one would expect four syllables in Pinault’s reconstruction, and, furthermore, both Av. *srāuuī* and Ved. *-śrāvi* have a passive rather than the active meaning posited for the first term of Pinault’s periphrastic construction.

### 57. Present Participles

Hintze 1994, 136 and 280–281, 1999, 105 and fn.24 (references) notes the confusion between thematic and athematic forms in the weak cases of fem. forms of present participles active, such as the acc.pl.fem. *xruuišiiēitš* ‘blood-thirsty’ from the thematic pres. stem *xruuišiiā-*. Such confusion extends to nominal stems formed with the primary athematic suffix *-ant-/at-*. For instance, the adj. *bərəz-ant-* ‘lofty’ attests both the thematic gen.pl. *bərəz-a-nt-qm* in Yt 19.15 and the expected athematic *bərəz-at-qm* in Yt 13.82 and Y 26.3. Swennen 1995 discusses fem. forms of the pres.part.act. with a view to establishing the system for the treatment of the suffix *\*-nt-* preceding the fem. suffix. *-ī*. Examining participles derived from both thematic and athematic present stems, he provides an inventory of the forms attested in Avestan. Martínez 2000 discusses the inflection of the participle *fīaṇ<sup>h</sup>ant-* (< *\*fīah<sub>1</sub>-ant-/at-*) ‘hailing’ and identifies the athematic gen.sg.fem. *fīaṇhuuaitiā*, transmitted by the manuscripts F1 and E1 in Yt 16.10, as *lectio difficilior* (p. 343f.). See no. 79 below s.v. *x<sup>v</sup>airiiaṇt-*. Hintze 2017, 169–170 and fn. 12–14 discusses the participles *vīdārəmnō*, *\*upa.vāiō* and *uzgrəmbiio* attested in HN 2.7, 2.25 and, partly, in Vyt 8.3 (55).

### 58. Aorist

Hardarson 1993 studies accent, ablaut, inflection and morphological innovations of the root aorist in Indo-Iranian and in Greek. While the co-existence of athematic and thematic root formations from the same root is common, the Av. and Ved. verb *ar*, in which several etymologically distinct roots have fallen together, displays a change of voice in showing middle root aorists alongside active thematic aorists. Disentangling forms of *<sup>1</sup>ar* < IE *\*h<sub>3</sub>er* ‘to set oneself in motion’ and *<sup>2</sup>ar* < IE *\*h<sub>1</sub>er* ‘to reach’, Kümmel 2000a argues that *<sup>1</sup>ar* forms a middle root aorist and reduplicated

present and <sup>2</sup>*ar* a thematic active aorist of the type Ved. *ára-t* and an inchoative present of the type Ved. *ṛcchá-ti*. Hintze 2017, 172–174 adds the form *fr̥r̥r̥anti* (HN 2.9, Vyt 8.4) as a second attestation of the active thematic aorist of <sup>2</sup>*ar* ‘to reach, arrive’, in addition to OAv. *ārəm* (Y 43.10), see no. 79 below s.v. *ar*.

Bendahman’s 1993 dissertation on reduplicated aorists in IE languages surveys the evidence of verbal roots in Indo-Iranian that form *a-* (< \**e*) reduplicated, zero-grade thematic stems (pp. 194–205). Interpreting the Av. stem *vaōca-*, Ved. *voca-* (< \**ua-uč-a-*, from \**uač-* ‘to speak’), as a reduplicated aorist rather than as a thematic perfect stem, as suggested by some scholars, she endorses its equation with Grk εἴπειν and assumes that this category, which originally had athematic inflection, developed in late PIE (pp. 40–41, 201–203), while Willi 2007, 39–41 projects the formation even further back into PIE.

### 59. Stative and *i*-passive

Kümmel 1996 examines the function and form of the two archaic verbal categories stative and *i*-passive in Vedic and Avestan. The stative, for which there is evidence also outside Indo-Iranian, consists of middle presents, with 3.sg. in Indo-Iranian \**-ai*, and with 3.pl. in \**-rai*, for example Ved. *śáy-e* ‘he/she/it lies’, plur. *śe-re* ‘they lie’. The *i*-passives, by contrast, are confined to Indo-Iranian. They are represented by forms with 3.sg. in \**-i* and 3.pl. in \**-ram/n* with special ablaut and a partly patientive function, for example OAv. *srāuuī*, Ved. *śrávi* ‘is famous’. Providing an inventory and discussion of the relevant forms and their contexts, Kümmel categorises the different meanings of the statives and passive aorists. He argues that, within the synchronic systems of the two languages, Ved. 3rd plural forms in *-ram/ran* and Av. 3rd sg. imperatives in *-qm* form paradigms with *i*-passive aorists. In contrast to Kümmel 1996, 145f., who assumes that a stative form such as OAv. *isē* (Ved. *ísē*) is substituted in YAv. by the middle *īšte*, Pooth 2000, 2001 argues that in Indo-Iranian stative forms may also have an agentive, reflexive or factitive function, which would allow them to be associated with the middle. Assuming that later attestations do not necessarily represent later linguistic forms, he pairs the OAv. stative *isē* (Y 50.1) ‘is able’ with the 3sg.mid. YAv. *īšte* (Purs. 11), the Ved. stative *śáye* with the 3sg. mid. Ved. *śéte*, YAv. *saēte*, and the stative Ved. *stáve* with the 3sg. mid. YAv. *staōta*, and he considers the middle forms as well as the statives to be inherited from Late IE rather than Indo-Iranian innovations. According to him, Late IE had pairs such as the stative \**stéu-o(-i)* alongside the middle \**stéu-to(-i)* (Pooth 2000, 95).

Jasanoff 2016, 140 argues that Indo-Iranian passive aorists are linked via an IE derivational process to middle root presents of the “stative-intransitive” type in 3sg. \**-ái*. The *i*-passive form *mraoī* in Y 32.14 is discussed by Gippert 1998, who argues that *mraoī* is 3sg. *i*-passive of the root present stem of *mrū* ‘to speak’ rather than of

the homonymous *mrū* ‘to maltreat’, as proposed by Humbach, and represents the earliest Av. attestation of an *i*-passive based on the present rather the aorist stem. Hintze 2001, 271, who accepts this analysis, explains the form *mraoī* instead of the expected OAv. *\*mrəuuī* (< Indo-Iranian *\*mraṷH-i*) as analogous with other forms of *mrū* ‘to speak’, such as 1sg. *mraomī*. By contrast, de Vaan 2003, 372 postulates an (irregular) *\*mrāyī* which remained unaffected by the change *\*-ayī-* > *\*-ayī-*. After the change *\*-ayī-* > *\*-ayī-* was completed, he suggests, *\*mrāyī* was shortened to *\*mrauuī* on the model of the pres. subj. stem *mrauuā-*.

### 60. Perfect

The most substantial contribution to the study of the Av. perfect during the review period is Kümmel’s 2000 monograph on the perfect in Indo-Iranian. The work aims at providing complete coverage of the perfect stems and forms in Ved. and Av. and investigates their historical development from PIE. Owing to the much smaller size of the corpus in comparison to Ved., the Av. material occupies only a little more than 10% of the book’s space. Each perfect form of the 66 roots which show perfect formations in Av. is examined in the context of its attestation, which is usually quoted and accompanied by the author’s own translation.<sup>6</sup>

The augment being only rarely attested in Av., there is no evidence for augmented perfect stems with secondary endings (perfect preterites or pluperfect), whereas the category is well documented in Vedic. However, its relationship to the imperfect and reduplicated aorist has been subject to a debate which is surveyed by Bandahman 1993, 126–137 and Kümmel 2000, 82–86; Willi 2007 sees the origin of the augment in the reduplication syllable of verbs with initial first laryngeal (*\*h<sub>1</sub>e-h<sub>1</sub>...*). There is Av. evidence for unaugmented forms (perf.inj.), the best example of which is the Gāthīc form *urūraosī* (Y 51.12; Kümmel 2000, 87f., 667). In addition, there are thematic forms with secondary endings built from the unaugmented *e*-reduplicated zero-grade stem. These forms are particularly ambiguous in that from a formal point of view, they might be interpreted as thematic perfect injunctives, perfect subjunctives or reduplicated thematic aorists. Thus, the forms *tatašat* and *jaymaš* are interpreted as (very rare) perf. subjunctives by Kellens 1984, 400, 411 n.1, 420; Pirart 1992, 25f., and Kümmel 2000, 89, 630, 639, but, following Bartholomae 1904, 645, as thematic perfect injunctives by Hintze 1994, 122 and Tremblay, 1996, 114f.; 2008, 31.

Jasanoff 1997 explains the form *cikōitərəš*, a hapax legomenon in Y 32.11, as the 3pl. inj.perf. or pluperfect (rather than 3pl. ind.perf. as previously assumed) of the verb *cit* ‘to perceive’ (< Indo-Iranian *\*čī-kāit-ṛš*). He thus finds in *cikōitərəš* the Av. counterpart of Ved. 3pl.inj.perf.act. forms built from the full grade root, such as Ved.

---

6 Reviews include Jamison 2002a and García-Ramón 2004.

*viveśur* (RV 4.23.9) from *viś* ‘to enter’ and, with augment (perfect preterite or pluperfect) *adīdhayur* ‘(they) appeared’ (RV 5.40.5). Jasanoff argues that, in both the pluperfect and the optative, the inherited 3pl. perfect ending *\*-r̥š* is paradigmatically associated with the active secondary endings 1sg. in *\*-m*, 2sg. in *\*-s*, and 3sg. in *\*-t*. While *cikōitərəš* is the only evidence of the 3pl. pluperfect in Av., the ending *\*-r̥š* is well attested in the 3pl.opt. (e.g. YAv. *jamīiārəš* of *gam* ‘to come’).<sup>7</sup> The 3pl. pluperfect contrasts in ablaut and ending with the 3pl. ind.perf., which is characterised by the ending *\*-r̥* in combination with the zero grade root (e.g. OAv. *cāxnarē* from *kan* ‘to be pleased with’). Assuming that the PIE perfect system was originally characterised by *\*o* : *\*e* ablaut, Jasanoff concludes that the type represented by Av. *cikōitərəš* (IE *\*k<sup>w</sup>ek<sup>w</sup>éit̥r̥s*) is an archaism that preserves “the inherited weak stem more faithfully than any of the attested forms of the perfect proper” (p. 129). Jasanoff’s interpretation is endorsed by Tremblay 2002 [2006], 265f. fn.24, while Kümmel 2000, 635–636 points out that all other finite forms of the verb *\*kaīt* ‘to perceive’ show *-θ-* in Av. He discusses the alternative proposal by Kellens & Pirart 1988–1991 III 89, according to which the form *cikōitərəš* is the gen.sg. of an agent noun *cikōitar-*, derived from the present stem YAv. *cikāi-* (Ved. *cikéti*). Although this analysis is supported by other agent nouns based on the present stem, in particular the OAv. fem. stem *man-aōθrī-*, Ved. *manótar-/manotár-*, built on the present stem Indo-Iranian *\*manáy-* ‘to remember’, Kümmel points out that the meaning and function of the postulated agent noun in the context of Y 32.11 remain unclear.

As far as modes derived from the perfect stem are concerned, Kümmel 2000, 88–90 concludes that Av. modal forms consistently show resultative meaning. By contrast, Ved. attests only a few modal forms with perfect function while other forms appear to function rather as variants of modal forms of present or aorist stems.

Skjærvø 1997a, 145–147; 1997b, 612, and 1998, 191 restores an Av. perfect participle stem *vaoxuuh-* of the verb *vac* ‘to speak’ by his analysis of the compound *\*miθō.vaox<sup>v</sup>āñhō* ‘having spoken falsely’ in Yt 19.95, where the mss. transmit a variety of readings, including *miθrō. aox<sup>v</sup>āñhō* (F1) and *miθrō.vaox<sup>v</sup>āñhō* (E1). He distinguishes the attestation in Yt 19.95 from Yt 10.104 *miθrō.āōjāñhō* ‘having the strength of Mithra’, in contrast to Hintze 1994, 392, who, following Kellens 1974, 170–171, reads *miθō.āōjāñhō* ‘speaking falsely’ in both passages.

The vowel of the reduplicative syllable of the perfect stem of the root *gar* ‘to wake up’ varies in the manuscripts between *-i-* and *-a-*, and the spellings of the root vowel between *-a-* and *-ā-*, while zero grade forms of the stem are absent. Kellens 1984, 402f. n. 15 considers the stem form based on *jaγār-* to represent the better reading. Tremblay 1997a discusses the irregular ablaut grade of the YAv. perf. participle

<sup>7</sup> The attestations of 3pl. opt. forms in *-iīārəš* are conveniently listed by de Vaan 2003, 531.

*jaγāuruuāṇhəm* and of the adj. *jaγāurūm* and adduces Mlr. equivalents for the long root syllable. Kümmel 2000, 632 suggests that the perfect participle of this root follows a non-ablauting paradigm, and that its long root vowel and that of the adj. *jaγāuru-* ‘vigilant’ have spread throughout the paradigm from the 3sg. *jaγāra*, which is in fact attested in N19.

Building on earlier proposals by Specht and Bader (references in Rau 1998, 143 fn.32), Rau 1998 sees in OAv. *vīduš*, Ved. *vidúṣ* the nom.sg.m. of a simple *u*-stem Indo-Iranian *\*vidú-* ‘knowing, knower’. He argues that *u*-stem variants in the Av. perfect participle directly preserve real *u*-stems rather than forms based on the zero-grade suffix of the perfect participle as previously assumed. Similarly, following Kellens’s 1984, 402f. note 15 identification of *jaγāuru-* ‘vigilant’ as an adjective of the type Ved. *jigyú-* (cf. Hintze 1994, 210f.), Kümmel 2000, 39 explains the OAv. forms *vīduš*, *vāunuš* and YAv. *vīθuš*, *mamnūš* as well as *jaγāuru-*, as adjectives based on the perfect stem and formed with the suffix *-u*.

With regard to the type Av. *caxri-*, Ved. *cákri-* ‘doing’, Grestenberger 2013 argues that there is a synchronic mismatch between form and function, in that these stems are formally associated with the resultative perfect but function as present participles, often with iterative or intensive meaning. She regards the association of the *cákri*-type with the perfect stem as secondary, but excludes the synchronic Indo-Iranian reduplicated verbal categories such as the reduplicated present as the derivational basis of this type, which she locates in an as yet unidentifiable reduplicated verbal or nominal category. Lowe 2014, 563 interprets the restricted distribution of the *cákri*-type in Av. as indicating that it was no longer productive and therefore cannot be considered synchronically a part of the non-finite verbal system.

### 61. Infinitives

Distinguishing between infinitives in the strict sense, quasi-infinitives and case forms in the paradigms of verbal abstract nouns, García-Ramón identifies four features which mark an infinitive *sensū stricto*: the form shows no connection with its functions (form ≠ function); it is morphologically isolated and belongs to no living nominal paradigm; the morpheme is not productive or synchronically recognizable; the form has verbal rection (García-Ramón 1997, 47f.; 2009; 2009a, 241f., 242 fn. 4 for the debate on features characteristic of the infinitive, 248f.). Surveying the formations in PIE from which the historical languages developed their infinitives, he identifies Ved. forms in *-sáni* and Greek ones in Proto-Grk *\*-sen* as reflexes of an IE infinitive in *\*-sén(i)*.<sup>8</sup> García-Ramón 1991 and 1997a are studies of the morpho-

---

<sup>8</sup> Formations of infinitives and supines in IE languages are conveniently listed in Gordon 2012, 503–504.

syntax of infinitives and verbal abstracts in Indo-Iranian *\*(C)ani*, including OP formations in <-ta-na-i-ya>, which he interprets as /-tani/, and Ved. *pupūtāni*. Stüber 2000a, 164 traces the development of *-sāni* from the loc. case form of an amphikinetic verbal abstract (*\*-s-én* plus *-i*) to an infinitive, and views this development in parallel to that of *-āse*, which, however, has never lost its connection with the nominal stem. She notes that the OAv. infinitives in *-aṃhē* (< *\*-ahaṃ*, Ved. *-āse*, *-ase*, originally dat.sg. of an *s*-abstract), are built from present (*frādaṃhē*, *vaēnaṃhē*, *rāšaieṃhē*, *srāuuaiieṃhē*) and aorist (*vaocaṃhē*) stems rather than from roots (p. 141f.). This phenomenon, which is also found in Ved. (e.g. RV *puṣyāse* ‘in order to thrive’, *vr̥ṇjāse* ‘in order to twist’, Stüber 2000a, 145f.), indicates that *-aṃhē* has become productive as a suffix marking an infinitive form within the verbal system. Elaborating on this observation, Fortson 2012a, 103 and 107 suggests that OAv. *-aṃhē* may have been on the way to becoming the default active infinitive ending, in contrast to *-diiāi*, which was confined chiefly to the medio-passive. According to him, the functional difference may have been an oppositional one between active and medio-passive, as, for example, in the pair OAv. *srāuuaiieṃhē* (Y 29.8) ‘to recite’ vs. YAv. *srāuuaiieḍiiāi* (Vyt 7.2 = 46),<sup>9</sup> the only surviving pair of this type of infinitive derived from the same stem; also in OAv. active *dāuuōi* ‘to place, give’ (Y 44.14) vs. middle *məṇdaidiiāi* ‘to put in mind’ (Y 44.8).

Gotō 2013, 132–138 records thirteen types of infinitive formation in Ved., eight of which have corresponding forms in Av., while Hoffmann & Forssman 2004, 240–243 identify ten types in Avestan. Noting that the category is relatively rare in YAv., Kellens 1994 provides an inventory of its attestations in OAv. He concludes that they have final dative function and distinguish voice and, possibly, tense. García-Ramón 1994 and 2009 argues that the types OAv. *vīduuanōi*, Grk εἰδέναι and Ved. *dāvāne*, Cyprian to-we-na-i /downai/, go back to PIE *\*uid-úen-ej* and *\*dh<sub>3</sub>-úen-ej* respectively, that is, to the dative forms of a full proterokinetic inflectional paradigm in PIE of heteroclitic verbal nouns in *\*-uer/n-*. By contrast, infinitives of the type Ved. *dāmane* and *vidmāne*, are reflexes of two different PIE ablaut types of non-heteroclitic *\*-men-* stems (2009, 85; 2009a, 246). While Ved. forms of the type *’-mane* still function as the datives of action nouns and those of the type *-māne* as quasi-infinitives, García-Ramón suggests that OAv. *xšqnmānē* (Y 29.9), the only Av. form in /-manai/, is a full infinitive which has reached the same stage of development as Greek infinitives in -μεναι (2009; 2009a, 248); see also no.79 below s.v. *xšqnmānē*.

9 Kellens, 1994, 46 suggests that the words *bərəzaṭ iḍa srāuuaiieḍiiāi ištōiš xšaθrəm ahurahe daḡušō* in Vyt 7.2 (= 46) may be the reflex of a, possibly incomplete, OAv. phrase, and that the inf. *srāuuaiieḍiiāi* may not be authentically YAv.

Rau 1998, 146–149 notes that OAv. disyllabic *vīduiē* (< \**uid-uai*) ‘to know’ and *dāuuōi* (< \**daH-uai*) ‘to give’ are the only Av. infinitives in \**-uai*, a formant which has no correspondents elsewhere in Indo-Iranian or in other IE languages. Assuming that this formation represents the frozen case form of a verbal substantive that has come to be integrated into the verbal system, he suggests that both Av. forms are to be taken as the dat.sg. of Pre- or Proto-Av. *u*-stem root-accented verbal substantives \**uid-u*- ‘act of knowing; knowledge’ and \**dāH-u*- ‘act of giving’. Rau interprets the zero-grade ablaut of the suffix in the oblique case of Av. *vīduiē* < \**uid-u-ai*, as indicating that in PIE the verbal substantive was inflected as an acrostatic *u*-stem \**uōidu-*/\**uēidu-* ‘act of knowing; knowledge’. From this *u*-stem, a proterokinetic possessive adj. \**uēidu-*/\**uidēu-* ‘having knowledge, knowing’, the pre-form of OAv. *vīdu-*, Ved. *vidú-* ‘knowing, knower’, was internally derived (Rau 1998, 156).

While García-Ramón 1993 derives the PIr. infinitive ending \*-*dhīāi* from a PIE dative \*-*dhīo-ei*, and the Sabellic passive infinitive ending /-fē:/ (Umbrian *-f(e)i*, Oscan *-fir*) from the instr.sg. PIE \*-*dhīo-h₁*, Fortson 2012, 51 points out that no other infinitives in IE languages derive from instrumentals. He nevertheless tries to “bridge the gap” between the Indo-Iranian and the Sabellic forms by suggesting that the \*-*dhī*<sup>o</sup> morpheme underlies both Indo-Iranian \*-*dhīāi* and Sabellic [-fē:], although he leaves the ultimate origin of the latter open. Considering it to be difficult to conceive that an earlier athematic stage of the suffix in Common Indo-Iranian times was completely effaced in Ved., where synchronically *-dhyai* was really *-a-dhyai* (2012a, 95), he suggests that the suffix was originally deprential, rather than deradical and athematic, and added specifically to thematic stems (2012, 52). The original locus of the suffix Indo-Iranian \*-*dhīāi* would have been in thematic presents, from where in both Av. and Ved. it spread to athematic presents and thence to roots, with further spread in Av. to aorists (2012a, 104–105). In Av. this led to a mixture of athematic deprential, thematic deprential, and athematic deradical forms. Thus, according to him, the various athematic and deradical Av. forms in *-diiāi* are innovations rather than retentions.

By contrast, Lühr 1994 separates the Indo-Iranian suffix from the Sabellic passive infinitives and argues for a verbal origin of \*-*dhīāi* within Indo-Iranian. Noting that infinitives in \*-*dhīāi* are usually formed from the present stem (e.g. Av. *vərəndiāi* ‘to decide’, *vərəziēidiāi* ‘to work’, *vazaiđiāi* ‘to travel’) and may be used like finite verbal forms denoting a will or an intention, especially of the 1st person sg. (p. 79, 85f.), she suggests that from a historical point of view, the \*-*āi* in \*-*dhīāi* represents the ending of the 1sg. subj.middle rather than the case ending of the thematic dat. sg. According to her, the suffix \*-*dhīāi* arose in PIr. by way of resegmentation in pairs of phonologically and semantically close verbs such as \**ṛdh* ‘to succeed, reach a goal’ and \**ṛ* ‘to reach, arrive’ (IE \**h₁r*). In her reconstruction of the historical processes, a



1sg. pres.mid. such as *\*r<sup>d</sup>-i-āi* ‘I want to succeed, reach a goal’ was re-interpreted as *\*r<sup>d</sup>-i-āi* ‘in order to arrive’ (p. 92f.). While allowing for the possibility that the process may also have happened in other verbs, she notes that the roots *\*r<sup>d</sup>* ‘to succeed, reach a goal’ and *\*r* ‘to reach, arrive’ constitute the only attested pair of this kind. Lühr corroborates her argument with reference to the form *uzərəidiāi* in Y 43.12 and 14, which she analyses as the 1sg. subj.pres.mid. of the verb *ard* ‘to succeed, reach’, rather than as an inf. in *-diāi* of one of the homonymous roots *ar*, as earlier studies had done. She considers the function of the form *uzərəidiāi* as the 1sg. to be particularly clear in Y 43.14, where the form is followed by the 1sg. personal pronoun *azəm*.

## 62. Composition

Sadovski 2004 studies the internal syntax of compounds involving adjectives or pronouns as first term, and nouns as second term. Focusing on compounds where the relationship between the first to the second term is either attributive or partitive, he discusses the formation and semantics of these compounds and of their external syntax in Vedic and Avestan. With regard to *vīspō.tanū-* (Y 9.17) ‘extending over the whole body’ he confirms Bartholomae’s interpretation that *vīspa-* denotes the domain, and finds a syntagmatic equivalent in expressions such as Yt 16.7, 14.29 *tanuuō vīspaiiā druuatātəm* ‘health of the whole body’. On the basis of Ved. parallels, he sees Indo-Iranian poetic diction in the use of Indo-Iranian *\*uicūa-* denoting the totality to which a feature extends and suggests that the relationship between the first and second term of compounds with Indo-Iranian *\*uicūa-* is a predicative, or adverbial attribution. A further use is that Indo-Iranian *\*uicūa-* is an attribute of another adjective, denoting the latter in its totality. In this function it has the potential of being a periphrastic analytical expression that is functionally equivalent to the superlative (Sadovski 2004, 322–323).

In a study of the mechanisms by which possessive compounds formed without a compositional suffix of the type *entheos* ‘having the god within’, came to be reinterpreted as prepositional governing compounds (e.g. the Ved. *entheos* compound *anuvrata-* ‘whose *vratá-* is appropriate’ → ‘who is, acts according to the *vratá-*’), Sadovski 2001, 109–111 discusses Av. compounds with *°dajhu-/°daxiiu-* as second term and preverbs or adverbs as first term. He suggests that the two possible translations of some of these forms as either *entheos* compound or as prepositional governing compound, turn out to be pragmatically identical, for example, *upairi.daxiiu-* ‘having the land above’ or ‘being above the land’. An exception is any compound form with Av. *uz/us*, which like Ved. *úd* is never used as a preposition in compounds, but only as a preverb or an adverb. Av. compounds with *uz/us* therefore cannot be prepositional governing compounds. Accordingly, *uz.dajhu-/°daxiiu-* is an *entheos* compound and describes a person ‘who has his country away’, ‘a for-

eigner’. Sadovski suggests that *ā-daxiiu-* was formed as an antonym to *uz.dajhu-/°daxiiu-* and that the pair provided the compositional model for the other six compounds with *°daxiiu-*, all of which are hapax legomena in Yt 10.144.

Pinault 2016, 102 adds Av. *parəndi-* as ‘carrying the flourishing across’ (see no. 79 below s.v.) to the Av. examples of verbal governing compounds with a root noun as first member. Hintze 2003, 147 fn.11 surveys interpretations of *°niuuā*, *°niuuqn*, which form the second term of the compounds *rāmaniiuuā*, *bāmaniiuuā*, *afsmaniiuuā*, *afsmaniiuuqn*. A new analysis is put forward by de Vaan 2012, who argues that Av. *°niuuā*, *°niuuqn* represent a root noun *\*ni-yanH-* ‘spreading out’. He explains the forms ending in *-niuuā* as the nom.sg. formed with the ending Indo-Iranian *\*-uās*, which according to him was analogically introduced into the root noun on the model of *-yant-* and *-mant-* stems, where it serves as a suppletive nom.sg. (p. 41). Interpreting ‘spreading out’ as ‘dispensing’, he renders *rāmaniiuuā* as ‘dispensing peace’, *bāmaniiuuā* as ‘dispensing radiance’, *afsmaniiuuqn* as ‘dispensing verse-lines’ (in the sense of delivering all verse-lines of the Gāthās in the right order, and offering the libations with all verse-lines in the right order). Rather than positing a separate root, as proposed by Ziegler 2004 (IE *\*uēnh<sub>1</sub>*) and Cheung 2007, 205–206 (IIr. *\*H<sub>1</sub>yanH*), de Vaan 2012, 38–39 considers the meaning ‘to spread out’, which *van* has especially in combination with the preverb *ni*, to be a semantic development through metaphorical extension of *van-* ‘to win, conquer’. The latter root had developed a variant *\*yanH-* in PIIr. under the influence of the semantically close IIr. root *\*sanH-* ‘to gain’ (p. 40–41). According to him, Av. has two homonymous roots, *van* ‘to win, conquer’ and *van* ‘to love’ (the latter is only attested in nominal derivatives, see no.79 below s.v. *vāunu-*).

De Vaan 2003, 170–173 surveys compounds that provide evidence for the lengthening of the first term’s stem final vowel in front an initial laryngeal of the second term. Lubotsky 1999 examines the lack of *\*s > š* after *r*, *u*, *k*, *i*, on the one hand, and secondary spread of *š*, on the other, at the beginning of both the second term of compounds and of the second syllable of reduplicated formations. He suggests that in Av. compounds, the retention of *st* (< IE *\*st*) and of *sp* (< IE *\*sp*) at the beginning of the second term after *r*, *u*, *k*, *i*, is due to the abundance of the sequences *ist* (< *\*itt*) and of *sp* (< PIE *\*k<sub>u</sub>*), respectively. In contrast, *sm-* and *sn-* are always affected by preceding *r*, *u*, *k*, *i* at the beginning of the second term of a compound. Vījūnas 2009, 109, 115–119 surveys Indo-Iranian compounds whose second term is a primary *t*-stem. The latter is built with the formant *-t-* attached to roots that are usually in the zero grade and end in the short vowels *-i*, *-u*, *-ɿ*, and *-a* (< *\*u*, *\*i*).

Remmer 2006, 44–47, 52–59 and 2012 discusses the form and function of formations consisting of the interrogative stem Indo-Iranian *\*ká-*, *kí-* and *kú-* prefixed to nouns, adjectives and adverbs to form compounds meaning ‘what an X!’, ‘where is

X?’ or similar. In contrast to Old Persian, Av. preserves no personal names of this type, but Remmer identifies two toponyms which do attest it. One is the name of the lake *qasaoiia-*, which she analyses as *\*kam-sau(i)ia-* ‘how swelling!’, the other is that of the mountain *kakahiiu-* in Yt 19.4 (< *\*ka-kas-iu-* ‘how split!’), see no.79 below s.vv. She suggests that the prefixing of interrogative particles belongs to the more colloquial speech and increases the emotive meaning of the formation in a variety of ways, including pejorative and diminutive senses (2006, 58–59).

Panaino 2012 discusses compounds with *mainiiu-* and Ahmadi 2013a those with *paoiriia-* as second term. The latter scholar suggests that *aša.paoiriia-*, *manas.paoiriia-*, *ārmaiti.paoiriia-* are not different rank-orderings of the three Aməša Spəntas, as previously suggested, but possessive adjectives expressing a restrictive qualification marking a subset of ‘creations’ (*dāman-*) or persons who strive for, or value *aša-*, *manah-*, *ārmaiti-* foremost (p. 869, 876). According to him the three compounds mean ‘for whom *aša-* is foremost’, ‘for whom *manah-* is foremost’, ‘for whom *ārmaiti-* is foremost’. Lubotsky 1998 points out that *ta*-past participles as first term in possessive (Bahuvrīhi) compounds refer to an action in the past or to the result of this action. Swennen 2002, 2003 studies Av., Old Persian and Ved. compounds whose first term is a colour word and whose second term is the word for ‘horse’. Noting that some of them serve as epithets of deities and may be used instead of the deity’s name, he argues that they transitioned into onomastics and came to be used as personal names of human beings. He reconstructs a PrIr. personal name *\*zariāspa-*, indirectly transmitted in *za-ri-aš-ba* of the Persepolis Tablets, the counterpart of Ved. *haryaśva-* ‘whose horses are dun-coloured’. Swennen 1998 and 2001, 110 postulates a compound consisting of three terms *aurušaspō.staoiiehīš* ‘as strong as the one who has white horses’ (“aussi vigoureuses que celui qui a des chevaux blancs”) in Yt 5.7, where the manuscript F1 and others transmit *auruš. aspō. staoiiehīš*. He suggests that *aurušaspō* stands for Mithra, who has the attribute *aurušāspəm* in Yt 10.102, and that Arəduui’s epithet *aurušaspō.staoiiehīš* in Yt 5.7 is equivalent to a hypothetical *\*miθrō.staoiiehīš* ‘aussi vigoureuses que Miθra’.

### 63. Derivation

With special reference to Av., Tremblay 2003 argues that in internal derivation the accent can denote logical categories. Elaborating on the observation of Kellens 1996, 65f. fn.24, that the acc.sg. forms *sāuuayhaēm* and *frādatfšaom* point towards hysterokinetic inflection, Tremblay suggests that the hysterokinetic adjectives contrast with the proterokinetic substantives *sāuuayhi-* and *frādatfšu-* respectively in so far as they denote different logical categories: the hysterokinetic type denotes a relational category and the proterokinetic type a generic category (253f.). According to Tremblay, *sāuuayhi-* and *sāuuayhaē-* were both derived with suffix *-i-* from *sauuah-*, probably

within the history of Avestan. He interprets their different inflectional behaviour as indicating that at the time of their formation, Ablaut was still productive in internal derivation, and constitutes an archaic feature especially in the language of Y 1–7 (250f.).

#### 64. Suffixes

**-anā-** Deriving the complex suffix *-anā-* from *\*-e-neh<sub>2</sub>-*, Vijūnas 2009, 122–123 notes that this suffix is directly added to the root.

**-ant-** Sims-Williams 1997 examines Indo-Iranian quantitative adjectives which are formed with suffix *-ant-* attached to collective forms in *\*-h<sub>2</sub>* of demonstrative, relative and interrogative pronouns. He argues that the survival of the suffix *-ant-* in correlative pronominal derivatives is an archaism in Indo-Iranian, as the suffix was in the process of being replaced by *\*-uent-* in the historical IE languages.

**Indo-Iranian \*-anč-** The suffixoid (Scarlatà 1999, 17) *-anč-/ač-* takes a middle position between composition and derivation (Wackernagel & Debrunner 1896–1954, vol. II.2, p. 152). What comes to be used as a suffix in Indo-Iranian is historically, according to Steer 2015, 224, either the root *\*h<sub>3</sub>ok<sup>w</sup>-/\*h<sub>3</sub>k<sup>w</sup>-* ‘to see’ or the derived root-noun *\*h<sub>3</sub>ók<sup>w</sup>/\*h<sub>3</sub>ók<sup>w</sup>-* ‘eye, face’. Scarlatà 1999, 17 suggests that the nasal in the suffix form *\*-anč-* is an infix that spread analogically in Indo-Iranian from the root *\*h<sub>2</sub>enk* ‘to bend’, while Gotō 2013, 44f. posits a suppletive paradigm in which the strong cases are formed with *\*-anč-* (from the IE root noun *\*h<sub>2</sub>enk* ‘bend’) and the weak cases with *\*-īč-/ō(ā)č-* (from the IE root noun *\*h<sub>3</sub>ek<sup>w</sup>-/\*h<sub>3</sub>k<sup>w</sup>-* ‘look, glance’). Steer 2015, 226, however, doubts that *\*-anč-* reflects the PIE root *\*h<sub>2</sub>enk* ‘to bend’ and endorses the explanation of Schmitt 1968, 140 according to which the nasal originated in PIIr. by analogy to the *nt*-participles in order to distinguish strong and weak cases. Steer 2015, 224 surveys various formations in Indo-Iranian languages and Schmitt 1968, 137f. identifies ten Av. stems in *\*-anč-*.

**Indo-Iranian \*-ācā-** De Vaan 2000 discusses the four Iranian nouns formed with the Indo-Iranian suffix *\*-ācā-*, which in Indo-Aryan is only found in Ved. *lopāśá-* ‘a kind of jackal’. The Iranian equivalent is present in the Elamite spelling *ra-u-ba-sa*, rendering OP *\*raupāša-* or *\*raupaša-*, and in MP *rwp’h* ‘fox’, Khot. *rrūvāsa-* ‘jackal’, etc. The noun is derived from *\*raupi-* ‘fox’ attested in Av. *raopi-* (Vd 13.16), whose Indo-Aryan equivalent *\*lōpi-* survives in Dardic dialects (p. 280). The other three nouns formed with this suffix are Av. *kahrkāsa-* ‘vulture’, from *\*karka-* ‘fowl’, *\*karpāsa-ka-* ‘lizard’ in various MIIr. languages, including Buddhist Sogdian *krps’k*, etc., from *\*karp(a)-* ‘frog(?)’, and, finally, Khot. *murāsa-* ‘peacock’ from *\*mrga-*, Khot. *mura-* ‘bird’. De Vaan concludes that the suffix *\*-ācā-* denotes an animal which is larger or fiercer than the animal to which the derivational basis refers. In view of

the lack of alternative plausible explanations, he suggests that the suffix was borrowed in PIIr. times from a non-IE Central Asian language (290f.).

**-āna-** Rau 2007, 60 surveys Av. stems in *-āna-*, a suffix which is well attested in the formation of patronymics and pro-patronymics.

**-ānī-** Attached to thematic stems and showing *devī*-inflection, feminines in *-ānī-* mean either ‘wife of x’ or ‘the divine woman, female genius of x’. While the suffix remains productive in Ved., in Iranian it only occurs in Av. *ahurānī-*, whose use is discussed by Hintze 2007, 230–235, and in *\*mašiiānī-*, which is only indirectly attested in Pahl. mšy’nyd. In a study of the origins and derivational history of *-ānī-*, Rau 2007 aligns feminines in *-ānī-* with Ved. and Av. derivatives in *-āna-*, fem. *-ānā-*. He concludes that the ‘lateral’ meaning ‘woman/wife of x’ became characteristic of stems in *-ānī-*, while the genitival and patronymic meaning ‘daughter of x’ came to be associated with the stems in *-ānā-*.

**-ka-** Jamison 2009 argues that, rather than having merely a diminutive or deprecatory function, the Indo-Iranian suffix *\*-ka-* is not only a morphologically convenient suffix to protect the end of a word from phonological erosion but also a sociolinguistic marker of colloquial or informal speech partly associated with the speech of and about women. Noting that apart from *pasuka-* and *daitika-* in Y 39.1–2, *-ka-*forms are absent from the high poetic language of the Old Avesta, she concludes that the suffix “can cluster in striking density” in YAv. passages such as Yt 5.95, which describes unwelcome libations; also in animal names, daēvic vocabulary, and in words for (evil or polluted) women, where *-kā-* suffixed forms chiefly designate females in their collective existence. On the basis of the rich evidence for *ka-*formations in the personal names of the Persepolis Tablets, Jamison suggests that this suffix was widespread in OIr. times, but is sparsely represented in the extant texts (pp. 319–322). Without reference to Jamison, Ciancaglini 2012, 2012a likewise notes that the suffix *-ka-* is rare in OAv., and that it occurs in YAv. chiefly in “daēvic” derivatives indicating sins, diseases, and evil beings. She concludes that no socio-linguistic connotation is present in the oldest ascertainable function of the suffix, which is the derivation of adjectives from personal pronouns. She interprets the diffusion of the suffix in YAv., OP and Ved. as an isogloss shared by these languages and inherited from PIIr. In a forthcoming monograph, Ciancaglini provides an exhaustive examination of the suffix *-ka-* in the Old and Middle Iranian languages.

**-mi** Tucker in Sims-Williams and Tucker 2005, 600 surveys Indo-Iranian primary nominal stems built with the suffix *\*-mi-*, including Av. *dāmi-* ‘creator’, *būmi-* ‘earth’, *varəmi-* ‘wave’.

**IE \*-nes-** Lipp 2009 II 428–431 and Nikolaev 2012–2013, 220–223 analyse the IE suffix *\*-ne/os-* as a conglomerate of *\*-no-* and *\*-s-*; cf. no.79 below s.v. *xʷarənah-*.

**IIr. \*-uīa-** Buyaner 2014, 701–703 discusses Av. formations with suffix \*-uīa- and argues that they have the semantic component of ‘substitute’ in the vocabulary denoting members of a family.

### 65. Onomastics

The dictionaries of personal names in Bactrian by Sims-Williams 2010 and in Sogdian by Lurje 2010 take a wide range of Av. onomastic material into account. Sadovski 2006 studies the compositional structure of the 422 Av. personal names, which he defines according to the principles governing the *Iranisches Personennamenbuch*, and Sadovski 2007 investigates personal names and epithets in their relationship to poetical phraseology in Indo-Iranian and PIE. In a study of morphology and semantics of Indo-Iranian personal names and epithets, Sadovski 2009a, 2013 surveys the compositional system of Indo-Iranian personal names and provides an in-depth study of the numerous names and epithets entailing words for ‘horse’ and ‘chariot’. He argues that their prominence in the Indo-Iranian onomastic system reflects the collective memory of the migrations of the Indo-Iranian peoples.

Schmitt 2003 discusses the types of names in the catalogue of the Fravardīn Yašt (Yt 13.95–142). With 249 (or 250) male and 27 (24 according to Remmer 2006, see below and fn. 10) female personal names, this text provides more than two thirds of the personal names found in the entire Avesta. Schmitt shows that naming conventions in the Avesta show flexibility in so far as individuals may be identified by a single name (idionym), by the combination of the idionym with the genitive of the father’s name and, occasionally, further ancestors, by a patronymic adjective, or by the gen.pl. of the name of the clan or the land of origin. Six female names are accompanied by the name of their husband. Remmer 2006 provides the first systematic study of the ca. 60 Rigvedic and Av. names of women, including mythological and semi-divine beings, but excluding female deities and daēvic witches (whose names are listed on p. 106 fn.80). Of the 27 female personal names and 4 epithets and patronyms attested in the Avesta, 24 occur in the Fravardīn Yašt (Yt 13.139–142).<sup>10</sup> Although the number of female personal names is dwarfed by almost 400 male counterparts, it appears high in comparison to the number of ca. 35 (partly uncertain) female names and gamonyms (i.e. derivatives of the husband’s name) of the considerably larger corpus of the Rigveda, which, however, lacks a catalogue of names comparable to that of Yt 13. Noting that a substantial number of female personal names are derived from male names, Remmer provides a range of insightful analyses, such as that of the pair *arənauuācī-* and *saṇhauuācī-* as ‘pronouncing the guilt’ (“die Schuld aus-

---

10 In her review of Remmer 2006, Kazzazi 2008, 88 fn.2 points out that Remmer refers to 23 attestations in Yt 13 on p.12, but to 24 on p. 106. Other reviews of the book include Jamison 2008.

sprechend”) and ‘pronouncing the teaching’ (“die Verkündigung aussprechend”) respectively (pp. 214–225).

Schmitt 2012 examines OIr. personal names with the *airiia-* (*ariya-ṛšan-*, *ariya-farnah-*) in the light of the Av. phrases *arša airiianqm daxiiunqm* and *xʷarənō airiianqm daxiiunqm*, and suggests that the names imply an anthroponomastic allusion to Haosrauuah. Schmitt 2006 studies names formed with Western OIr. *farnah-*. He argues that there are instances where *farnah-* is functionally equivalent to Ved. *śravas-* and suggests that PrIr. *\*čraṇah-* ‘fame’ was substituted with Ir. *farnah-/hūarnah-* in a process of onomastic modernisation. He sees the model for the substitution in the name *\*aγžiti-farnah-* ‘of imperishable glory’, the modernised form of *\*aγžiti-čraṇah-* ‘of imperishable fame’. In a study of copulative compounds in Iranian onomastics, Cereti 2011 surveys the debate on the Av. names *maqdrāuuayhu-* and *srīrāuuayhu-* (Yt 13.118), and *ašāhura-* (Yt 13.113) and sides with the view that these names are best explained as possessive or determinative compounds. While there are some examples in Western Old Iranian, he argues that such names become frequent only in Middle Iranian times, although they remain rare in the Pahlavi literature.

## 66. Syntax

Syntax has notoriously received less scholarly attention than phonology and morphology in the study of Old Iranian grammar. Reichelt 1909, 218–387 is still the most complete presentation although he failed to distinguish systematically between Old and Young Av. and, for Av. case syntax, relied on an even older work, Hübschmann’s *Casuslehre* of 1875, 147–288. Hewson & Bubenik 2006: 131–159 survey case syntax from Old to Modern Iranian languages, and Skjærvø’s 2009 description of Old Iranian includes a substantial section on Av. syntax. Beekes’s 1988 work on OAv. phonology and morphology is complemented by Kellens & Pirart’s 1988–1991 II 3–193 study of OAv. syntax. West’s 2011 work on *Old Av. Syntax and Stylistic* is characterised by Schmitt 2012a, 166 as a syntactic commentary on his own translation of these texts of 2010. Studies on individual aspects of Av. syntax are surveyed below.

## 67. Number

Kellens 1991a examines the OAv. texts for the agreement in the category number between nouns, on the one hand, and attributes (genitives or pronouns) and finite verbal forms, on the other. He discusses the triad ‘thought, word, deed’ in greater detail and notes an opposition between the singular forms of the complete triad and the plural when only one or two of its members are used. He concludes that the plurals of *uxda-*, which he considers to be homonymous with *vacah-* ‘word’, and of *šīiaoθana-* ‘action’ are elliptic for the complete triad (p. 107). The topic of number in OAv. is resumed by Ahmadi 2014a, who studies unexpected plurals, in particular the

forms *ašā* (Y 34.9), *xšaθrāiš* (Y 46.11), *xratauuō* (Y 45.2, 46.3), *xratūš* (Y 31.11, 32.14), *sauuāṇhqm* (Y 28.9) and *frauuāšiš* (Y 37.3). Pointing out that in all such occurrences the noun is associated with a plurality of persons, he suggests that the phenomenon belongs to the order of discourse rather than grammar (p. 70). According to him, the plural has a distributive function and indicates the individuated attribution to a plurality of persons. For example, the instr.pl. *xšaθrāiš* in Y 46.11 would mean ‘(the Karapans and the Kavis) each through their power (yoke man, etc.)’ (p. 65). In Y 28.9, the plural form *sauuāṇhqm* would denote the “individuation of the desired action in relation to the members of the group” (p. 66), and the acc. plural *ašā* in Y 34.9 the aspiration of each and every one of the ‘men of bad action’ for a blissful afterlife (p. 71). The plural emphatically ties the noun to each and every member of the group with which it is associated. Cantera 2001–2 examines the question why the collective/comprehensive (e.g. *saxʷārē* in Y 29.4) that constitutes the nom.pl.ntr. takes the verb in the singular while the collective /comprehensive that constitutes the nom.pl.m. (e.g. *mašiiā*) takes the verb in the plural.

#### 68. Cases

The most detailed study of Av. case syntax is Bichlmeier’s 2011 systematic treatment of the use of the ablative, locative and instrumental cases in YAv.<sup>11</sup> In contrast to his predecessors in the study of Av. syntax, Bichlmeier uses a theoretical framework which goes well beyond the traditional approach, and which includes the theory that in ancient IE languages each case has an autonomous prototypical function that constitutes its semantic centre. While the investigation is generally synchronic, as far as the diachronic perspective is concerned, Bichlmeier generally confirms what might previously have been assumed on rather impressionistic grounds, namely that YAv. case syntax takes a middle position between the archaic OAv. and Ved. stages, where the individual cases still have a large degree of autonomy and local particles nuance the sentence rather than modifying the case form, and the more advanced stage of development represented by Old Persian and characterised by a rigid valency frame for the verbs and the marking of cases by means of adpositions (pp. 396–398). The work provides a comprehensive inventory of the YAv. attestations of the three cases, classified according to their functions. Kellens 1997a surveys the various functions of the genitive in OAv. and concludes that the genitive is the only legitimate adnominal case. Pirart 2000 discusses ungrammatical uses of case forms with special reference to the neuter plural, and Hintze 1994, 317–318 surveys instances of the use of the dat. in the syntactic function of the gen.

---

11 Reviews include Hintze 2012 and Dieu 2013.



Cantera 2005 argues that in Indo-Iranian adjectives in adverbial-predicative function are used freely and are preferred to the adverb. While in some modern European languages the adjective in adverbial-predicative function is rare (“\*Er kam intelligent an” does not exist), Indo-Iranian has a class of adjectives that can be used in this way. Lowe 2014 examines adjectives and nouns in OAv. that optionally or obligatorily display verbal government of objects in the accusative case, which cannot be explained as an adjunct expressing extent or goal. Noting that cross-linguistically such transitive nominals are rare, and their existence even explicitly excluded in some theoretical models of linguistic categorization, he aims at establishing a set of rules and constraints on nominal transitivity in OAv. He identifies desiderative adjectives, such as *cixšnušō* ‘desirous of gratifying’, superlatives in *-išta-* such as *mairišta-* ‘best at remembering’, both of which are based on potentially transitive verbal roots (*xšnu* ‘to gratify’, *mar* ‘to remember’), and the OAv. reduplicated stems *caxri-* and *ma-nao9rī-*, as the clearest categories attested for nominal transitives in OAv., and argues that transitive nominals are restricted to nouns that show clear morphological patterning with the verbal system. Lowe establishes a correlation between transitivity of nominals and their nominative (subject) predication and suggests that there is even positive evidence that nonpredicated forms of potentially transitive nominal categories may have been unable to display transitivity (p. 573f.).

YAv. provides evidence for the non-canonical marking of the subject argument by the accusative and, occasionally, by the genitive or dative, and of the object by the nominative. While Spiegel 1882, 410–412 interpreted this phenomenon as indicating the beginning of the break-down of the inflectional system in YAv., Reichelt 1909, 225–226 attributed it to the poor transmission of the Avesta. Danesi 2014, in turn, provides a linguistic explanation. Observing that accusative subjects chiefly occur in intransitive patterns and occasionally with verbs that possess inherent low transitivity, she interprets the accusative subjects as indicating the possible existence, in YAv., of a general oblique subject construction, where the subject is not in the nominative case (pp. 245f., 250), and adduces parallels from other IE languages. According to her, the feature could be an archaism that survived in less formal language especially of the Vidēvdād, but not in the highly poetic diction of the Older Avesta. Her conclusions accord with the argument of Barddal & Eythórdsson 2009, that subject-like obliques have their origin in the PIE stative-active language, where oblique subjects formed a natural part of the alignment system.

### 69. Ergativity

In addition to normal nominative-accusative alignment in most clauses, some Old Iranian transitive clauses in the perfective aspect or in the past tense show evidence for a nominal construction whose head is the verbal adj. in *-ta-*, which in Middle

Iranian develops into the past stem. The logical subject is in the gen./dat. case and the logical object is in the nominative. While there are several studies about the shift from accusative alignment to split-ergativity in Iranian, among the more recent ones being Bynon 2005 and Haig 2008, for OIr. they focus on Old Persian and its *manā krtam* construction.

The Av. evidence has been studied in greater detail by Bichlmeier 2011, 319–339, who discusses the marking of the agent in YAv. and observes that the instrumental is the most common case to denote the agent in passive constructions. In combination with the verbal adj. in *-ta-* the agent is usually marked by the dative, as is the case also in other IE languages, and occasionally by the genitive, ablative and locative cases. The most complete study of the Av. evidence is by Jügel 2010 and, especially, 2015. The latter two-volume work, reviews of which include Schmitt 2016, provides an inventory and translation of all Av. attestations as well as those in OP, MP, Parthian and Bactrian, and traces the development of the ergative construction in Old and Middle Iranian. With reference to Lazard's 2005, 81 fn.1 observation, that the ergative construction comprises both passive and possessive components because the verbal adj. in *\*-ta-* has passive meaning while the agent in the oblique case is a possessive complement, Jügel 2015, 25 maintains that the passive and possessive morphological markers of the OP construction are unsuitable to explain the ergative construction of Middle Iranian. He argues that the construction started from a clause in which a verbal adjective in *-ta-* is in the nominative case, functions as a predicative noun, and implies, or is constructed with, the copula. The dative of benefit, or *dativus commodi*, which may be combined with it, already came to be re-interpreted as the agent in OIr., and this process led to the development of the ergative construction. The fact that the adj. in *-ta-* has resultative meaning eventually leads to the integration of the construction into the verbal system. With reference to Brugmann, Jügel 2010, 112 and 2015, 471–474 argues that the ergative construction fills a gap in the PIE verbal system, where the synthetic resultative perfect refers to the agent, while the verbal adjective in *-ta-* provides the possibility of denoting the result with reference to its primary participant. The latter is generally the object if the verb is transitive and the subject if it is intransitive.

### 70. Verb syntax

Elaborating on Kellens's 1984, 247–249 suggestion that in YAv. augmented imperfect forms either belong to the language of the Daēuuas (as an old-fashioned way of speaking) or denote anteriority, Oettinger 2013 argues that they have in addition come to denote the remote past while their original function as the narrative tense is taken over by the injunctive. He also establishes a typological parallel with the French *passé simple*, whose function has developed from a narrative tense to denoting the

remote past. Hale 1993 discusses the fronting of preverbs in tmesi in Vedic and Avestan. He notes that in the RV a preverb in tmesi may be fronted to sentence-initial position to the left of an interrogative or relative pronoun or other complement, and suggests that Av. is innovative by not allowing any word to appear to the left of a question word or a relative pronoun. Ciancaglini 2011 examines morpho-syntactic features in Iranian and Indo-Aryan languages of verbal locutions formed by a nominal stem and a verb with a weak semantic value, such as ‘to do’, ‘to have’, ‘to give’, ‘to be’, etc., and argues that periphrastic verbal expressions have a long history in Iranian languages and are to be considered as an Indo-Iranian feature.

### 71. Participles

Noting that in the RV, the overwhelming majority of negated participles are based on the verbal present stem, with only a few derived from the aorist or perfect stem, Lowe 2011 argues that negated present participles differ from non-negated ones and finite verbal forms both syntactically and semantically. On the basis of comparative evidence, he postulates a rule for PIE to the effect that a participle compounded with the negative prefix produced a non-participial adjective, which differed from non-negated participles in that negated participles are regularly intransitive and occur in the function of adjectives rather than participles. He explains rare instances of transitive negated participles in Av. and Ved. as an innovation that took place independently in the two branches of Indo-Iranian (p. 31 fn.19). Sommer 2013–4 examines the syntax and function in YAv. of participles in grammatical subordination and as an alternative to finite clauses with a subordinating conjunction. Taking the perspective of cross-linguistic research on non-finite verb forms, or converbs, that serve to express adverbial subordination, he identifies the “adverbial” function of participles to be the dominant one and argues that the position of adverbial participles within main clauses is in principle free, but that postposing of purpose clauses is preferred.

### 72. Hypotaxis

Studies of complex sentences include Panaino 1993a on irreal conditional constructions, Hintze 1997 on paratactic and hypotactic constructions and Pirart 1997c on “unrecognised” subordination. Widmer 2012 provides the first ever investigation of the formal and functional properties of cleft sentences in Av., and in Old and Middle Persian, a construction whose existence has hitherto not been recognised in these languages. Widmer argues that Av. cleft sentences mainly function as a focussing device and show greater formal and functional variation as compared to Old Persian, where their principal function consists in the structuring of information on a text level.

### 73. Stylistics and poetics

The oral nature of ancient Iranian, and Indo-European, poetry is emphasised by Watkins 1995, 70. He describes the Indo-European poet as “the highest-paid professional in his society”, who was in a business relationship with a patron (for further studies on the oral composition of the Avesta, see Skjærvø 2005–6 and Hintze 2014, 9). Jackson 2016 engages Indo-Iranian and Grk comparative evidence to examine the patron-client relationship in the socio-economic context of ritual performance. In particular, he argues that the itinerant poet-priest paved the way for a happy afterlife of his client, the patron, by means of ritual action and ritual poetry. Regarding poetry as a window on the ritual economy, Jackson 2002–3 and 2014 argues that Y 44.20, the last stanza of this OAv. hymn, reveals a similar, but inverted scenario with a polemical bite of Ved. versions of the so-called Vala-myth, within the framework of a *dānastuti*. Watkins’s 1995 monograph on Comparative Indo-European poetics has a special focus on the motif of the hero killing a serpent or dragon, and includes substantial sections on the role of the spoken word in IE society. In particular, he identifies the liturgical style of the YH as belonging to a poetic genre intermediate between prose and the quantitative IE metrical verse. He argues that what he calls the “strophic style” of the YH has parallels in other IE traditions, such as Cato’s Early Latin *suouitaurlia*, and the Umbrian Tables of Iguvium (1995, 231). Endorsing Watkins’s conclusions that both the metrical, stichic and the non-metrical, rhythmic style are parallel inheritances from the PIE poetic language and of equal antiquity, Hintze 2007, 2–21 discusses the poetic form and composition of the YH and concludes that in spite of the small volume of surviving early Zoroastrian texts, both styles are represented in the OAv. text corpus: the metrical, stichic one by the Gāthās, the non-metrical, rhythmic by the YH.

In a series of articles, Skjærvø 2001, 2002, 2002a, 2003, 2003a, 2005a adduces Rigvedic and other IE parallels for OAv. poetic techniques and the role of the poet-sacrificer in society. Jamison 2007 is an enquiry into Gāthic poetry and the Gāthic poetic voice in comparison with that of the Rigveda with a view to establishing similarities and differences between the two corpora. While emphasizing their common heritage, Jamison 2005 and 2007, 30–49 observes major stylistic distinctions between the Gāthās, on the one hand, and the Ved. hymns, on the other. She argues that the composer of the Gāthās employs the poetic elements of their shared tradition in significantly different ways from any Rigvedic poet. The stylistic divergences identified by Jamison include the dominant use of the 1<sup>st</sup> person sg., which makes the Gāthās more interactive in so far as the relationship between man and god is depicted in a more direct and mutual way. Another major difference is that in the Rigveda, the speech is almost always one-sided, as the god does not answer back. In the Gāthās, by contrast, Ahura Mazdā and other divine beings participate in the dialogue (Jamison

2005, 129–130). Vice versa, Jamison 2005 [2009], while remaining agnostic about the identity of the Gāthic poet, argues that supposed aberrancies in verbal usages that Kellens and other scholars take as evidence against a Zarathustra-poet (references in Jamison 2007, 21f. and fn.4) can be paralleled by the habits of undoubted Ved. poets.

West 2011, 131–142 surveys stylistic figures in OAv. They include the ‘augmented triad’, which was discovered and described by West 2004 and 2007, 117–119 with examples from Ved., Greek, Germanic, Celtic as well as Av. literatures. The figure is an end-weighted structure according to the principle of Behaghel’s Law, of three parallel words or phrases of which the third is the bulkiest. Watkins 2005 identifies a basic “creation catalogue” in OIr. and Ved., which is repeated with unbound variation in the context of traditional oral literature. He observes that three lists in OIr. (Y 44.3–5, 37.1 and in the OP text DNā 1ff.) share a number of grammatical and stylistic features, including anaphora, dyads and repetition of the main verb. Hintze 1995a discusses the poetic technique of the Yašts with regard to structuring devices (ritornello and ring-composition, parallelism with anaphora and epiphora, chiasmic construction, polyptoton with growing members) and also features of humour and irony. Hintze 1997 detects a paratactic style in the Yašts as compared with the more intricate style of the Gāthās, which abound in syntactic subordination, albeit largely made by the single conjunction *hiiaṭ*. In the Younger Avesta, by contrast, a greater variety of segmental subordinators is found, although a feature of the poetic style of the Yašt is that paratactic coordination is preferred to hypotactic subordination. Sadovski 2005, 2008 and 2009 studies poetic figures of speech in Old Iranian and Old Indo-Aryan. Sadovski 2012 provides an analysis of the structure and contents of lists and catalogues in Indo-Iranian, and Sadovski 2012a a study of ritual spells. Jügel 2015a and 2015b studies repetitive sequences in the Pahlavi Yasna manuscript J2 with a view to establishing the function of repetitions in the compositional structure of the Yasna.

Following the research of H.-P. Schmidt and other scholars on the composition of Gāthic hymns, especially of Y 49, 47 and 33, Schwartz 1998 and 2003, with particular reference to Y 32 and 29 respectively, elaborates on parallelism and ring-composition as structuring devices of Gāthic hymns. According to him, the stanzas of a hymn are concatenated concentrically. The central stanza is hereby thematically particularly significant and concatenates with the preceding and following stanzas and with the first and last stanzas of the hymn. Formal relatedness being the primary basis of Gāthic poetry, the argument goes, concatenation with concentricism is achieved through words which are related by either form or meaning, or both. Schwartz suggests that a Gāthic hymn was generated from a proto-poem through the systematic concatenation of concentrically related stanzas to the first and last stanzas and through expansion of verses in between the cardinal points of the hymn. Moreover, according to him one poem was composed on the phraseological basis of another by employing

the principle of symmetrical ring-composition, Y 29 being the first and Y 53 the last poem to be composed (Schwartz 2002 [2006], 54; 2010, 219). He also argues that Y 32 and 48 contain inimical recasting of lexico-phraseological material from an OAv. proto-form of the YAv. hymn to Haōma (Y 9–11, Schwartz 2006a, 2006b). Schwartz has elaborated on his ideas about the poetic structure and production of the OAv. hymns in a series of articles, and he gives a general overview of his thinking in an analytical bibliography (Schwartz 2006, 497f.) and in Schwartz 2014.

Hintze 2002 argues that the extant arrangement of the OAv. texts is not only indicated by cross-references between different Gāthic hymns but also explicitly referred to in the Younger Avesta. She argues that the way in which the OAv. texts are arranged within the Yasna is deliberate and intended by the priest-poet(s). Analysing Y28 and 43 as examples of ring-composition, she detects an internal structure both in the composition of each individual hymn and in the way the hymns follow one another, and interprets the position of the Yasna Haptañhāiti after the first Gāthā as indicating that it represents the liturgical centre of the entire ceremony. According to Kellens 2007, who likewise focuses on Y 28, the individual *hāiti* constitute complete poems but are not independent from one another because they display a conceptual progression from hymn to hymn. Kellens 2013 elaborates on his understanding of the Gāthā as the basic unit of the OAv. corpus. Observing a concentration of ritual vocabulary at the end of the first three Gāthās, each of which consists of several *hāiti*, he suggests that the first, *Ahunauuaitī* Gāthā represents the recitation text of a self-contained morning (*ušahina-*) ritual whose name might have been *dasəma-*, a word which occurs in Y 28.9 (p. 58 fn.6). West 2007a attempts to bring out the coherence of the composition of Y 29.

Forssman 2009 discusses the stylistic figure of different tense forms of one and the same verbal root occurring in syntactic vicinity, such as of the type *vanaiñtī vā vāñghən vā vaonarə vā* ‘they win or will win or have won’. He surveys the six occurrences of the figure in the Gāthās, and for the first time presents an inventory of the YAv. attestations, arranged according to the verbal root. For this type of paronymy he coins the term polychronon, analogous to the term polyptoton. Forssman 2005 discusses the repetition of prepositions which are coordinated by *-ca*, in particular of *añtarə* in expressions such as *añtarəca zqm añtarəca asmanəm* ‘between earth and sky’ in the context of IE phraseology. He argues that a number of IE languages developed the tendency, probably independently from each other, to repeat the prepositions. According to Jamison 2002 the words *vīspā tā* at the beginning of Y 51.5 are an anagram for the name of Zarathustra’s patron Vištāspa. She suggests that in Y 51 the poet twice asks (Y 51.4 and 11) and answers the question where Zarathustra will find support, and that the first answer is immediate but phonetically scrambled (Y 51.5), while the second is postponed to Y 51.16, but straightforward.

Slade 2008 [2010] and 2009 adduces evidence from Iranian, Ved. and other IE texts for the poetic motif of ‘splitting’ as well as ‘killing’ the dragon, while Gippert 1998 examines Av. passages dealing with the killing of a cow. Andrés-Toledo 2009, 2010 reconstructs three Indo-Iranian syntagmas involving forms of *\*bandh* ‘to bind’, *\*sarj* ‘to release’, *\*griHyaH-* ‘neck’ and *\*najH* ‘to lead’ and depicting death as a hunter who hurls a noose around the mortal’s neck, binds him and leads him away like a prey. Watkins 1997 studies the Indo-Iranian stylistic figure ‘Throng-lord of throngs’ and Miyakawa 2002a [2006] discusses the Av. figures of reinforcement *daēuuanəm daēuuō*, *daēuuanəm daēuuō.təma-* in the light of Ved. *devó devānām* ‘god of gods’, *devānām devātama-* ‘the highest god of the gods’ and explores the Indo-Iranian roots of the figures. Janda 2014, 338–339 compares the Av. expression *nasāum fra-bar* with Grk *νέκυν προφέρειν* ‘to carry a dead body before (the relatives)’ and considers it to be an inherited IE phrase. He also retrieves the PIr. phrase ‘the name of the cow’ by comparing Yt 8.2 *gəušca nāma* and Ved. *gór ... nāma* (2008, 496). With reference to the phrase *māñhəmca māēθanəmca miiazdəmca frā.yazamaide* in Yt 8.1, Janda 2008 argues for the PIr. origin of the concept of lunar mansions. J. Katz 2000 investigates Indo-Iranian and Grk poetic expressions for the personification of the night as wearing a star-spangled cloak, and Jackson 2001 and 2002 studies a Graeco-Av. parallel regarding the adornment of the sky with stars. He interprets the Av. phrase ‘the star-adorned cloak, created by the spirit’ (*vanhanəm stəhrpaēsəñhəm mainiiu.tāštəm* Yt 13.3) as one of several Indo-Iranian formulae for the notion of a sky-dwelling deity who is robed with the vault of heaven.

#### 74. Lexicon

Kellens 2005 discusses Av. lexicography and Doctor 2004 provides direct and reverse indices based on Geldner’s 1889–1896 edition of the Avesta, supplemented by computer-generated lexicostatistical data, including the frequencies of individual characters and their combinations. According to Kellens 2003, 109–111 terms with positive and negative meanings in Av. and Ved. are remnants of lexical and semantic oppositions in PIr. which are progressively being lost in the two language branches. Schlerath 1991 [1992] suggests that the language of the Gathas reflects inherited opposites and points to a direction that was suppressed in the RV.

Cereti 2005 studies the spelling of 248 Av. (loan)words, about half of which are personal names, in the Pahlavi script and suggests that variations in the Pahlavi spelling of the same Av. word might indicate loans at different points in time, and the existence of different strata of the tradition. Macuch 2005 draws attention to Av. expressions still in use in late Sasanian jurisprudence, including *yō.hē pascaēta* ‘who (succeeds) him afterwards’ from a lost Av. context. She argues that the term denotes the legal successor regardless of his or her gender and the form of succession in-

volved, and that the term belongs to a period predating the development of the complex rules of succession of Sasanian times. Macuch 2005, 381 with fn.19 also points out that Av. *tāiiu-* ‘thief’ and *hazaŋ<sup>h</sup>han-* ‘robber’ already reflect the legal distinction between MP *duzd* and *appar*, namely theft as an act of stealing secretly and openly respectively. Panaino 1998a attempts a linguistic analysis of the obscure words which the Turanian Fraŋrasiian utters after his three unsuccessful efforts to catch the *x<sup>h</sup>arənah-* in the Lake Vouru.kaša. According to him, the words have an obscene meaning.

### 75. Semantics

Hintze 2000 studies semantically similar words for ‘reward, remuneration’ in Av. and Ved. with a view to establishing their semantic relationships and contrasts. The Av. lexemes *mīžda-*, *aši-*, *āiiapta-* and *zəmanā-* and Ved. *mīḍhá-*, *vāja-*, *dákṣinā-* are identified as words for ‘reward, remuneration’ by using a prototypical situational frame, and their etymologies and semantics are examined. It is concluded that these words contrast with one another semantically in that each of them highlights a different aspect of the situational frame.<sup>12</sup> Hintze 2003, 151–153 discusses different words for the recitation of the sacred texts. Piras 1998 studies Gāthic expressions for the activity of ‘seeing’, both physically and mentally, with a view to establishing the Av. “optical code” from psychological and semasiological points of view, while Panaino 1998 investigates Av. words for good and bad smell. In a study of expressions in Indo-Iranian for ‘to recognise’, Lühr 1998 identifies Av. *vi-ci* ‘to distinguish’ as the only prefixed verb with that meaning. She argues that the verb *ci* ‘to pile up’, which denotes a physical action, was turned into a verb denoting recognition (‘to distinguish’) by means of the addition of the prefix *vi* ‘apart’, ‘asunder’. Observing that in Av. and also in Ved. the reflexes of the IE root *\*(s)meuk-* ‘to strip off, wipe’ conventionally collocate with words for feet or feet-coverings, Joseph & Karnitis 2005 argue that *\*(s)meuk-* developed a foot-related specialised meaning in Indo-Iranian when compounded with preverbs. According to them, the semantic specialisation of Av. *framuxti-* ‘taking off footwear’ (hapax in Vd 6.27, Ved. *prámukti-*) and *pai-ti.šmuxta-* ‘wearing shoes’ (Yt 5.64, 78 and Yt 10.125, cf. Ved. *pratimukta-*) is inherited from the Indo-Iranian specialised usage. Panaino 2009 examines the etymology of, and the semantic relationship between, the adjectives *ciθrauuaitī-*, *daxštauuaitī-* and *vohunauuaitī-*, which occur in the Vidēvdād as a fixed sequence describing a woman in her *menses* (see also no. 79 below s.vv. *ciθra-* and *daxšta-*).

---

12 Reviews include Kazzazi 2003 and Oberlies 2004 [2006].



The eschatological function of the term *daēnā-* is emphasised by Kellens 1994a and 1995a, and by Piras 2003, with reference to her role as a psychopomp, while Ahmadi 2014, 909f. emphasises the connection between *daēnā-* and the (sacrificial) cow. Hintze 2007, 59f. quotes Y 48.4 to illustrate the view that the *daēnā-* is moulded by a person's choices. Piras 1996, 14 points out the parallelism in imagery and function between *daēnā-* and *xratu-*, in connection with *saošiiaṇt-* on the one hand, and with the dawn and the 'cow' (or 'bull') on the other. He derives *āsna-*, which is collocated with *xratu-*, from the root *san* 'to ascend' and suggests that the expression refers to the upward traversing of space towards heaven (see also no. 79 below s.vv. *āsna-* and *xratu-*).

#### 76. Substrate words in Indo-Iranian

A range of Indo-Iranian, chiefly cultural words such as *\*uštr* 'camel', *\*khar* 'donkey', *\*išt* 'brick', which lack an IE etymology, have been explained as loanwords from the unknown language of the substrate culture of the Bactria-Margiana Cultural Complex (BMAC), which flourished in the areas bordering Northern Iran and Northern Afghanistan in the late third and first part of the second millennium BCE. The argument goes that the words were borrowed by intrusive Indo-Iranian speakers and assimilated during a period of acculturation. Witzel 1999, 2003 discusses the archaeological and historical background and the linguistic evidence, and in 2003, 28ff. engages with Lubotsky's 2001 discussion of the topic. The latter presents a list of isolates in Indo-Iranian, which lack an IE etymology.

#### 77. Indo-Iranian loanwords in Finno-Ugrian languages

H. Katz 2003, 77–300 surveys 660 lexical items which he considers as Indo-Iranian loan words in Uralic languages. They include Av. *raoxšna-* 'light' in Finnish *lounas* 'southwest, noon, lunch' and Komi *lun* 'day, daylight' (pp. 80–81), and Av. *gairi-*, Ved. *giri-* in Mari *kurêk* 'hill, mountain' and Komi *kjr* 'hill' (p. 95). Aikio & Kallio 2005 [2006], 219 critically review Katz's reconstructions. Koivulehto 2000 and 2001 discusses Iranian and Indo-Iranian influence on the lexicon of Finno-Ugrian languages, and Sköld 2002 Finnish *naaras* 'female' as an Indo-Iranian loanword. Helminski 2002 studies Iranian loanwords in Hungarian, and A. Widmer 2002 and Blažek 2005 Indo-Iranian elements in the mythological lexicon of Finno-Ugrian.

#### 78. Iranian loanwords in Greek, Caucasian and Semitic languages

Brust 2005 (second edition 2008) provides a philological and linguistic analysis of more than 200 Iranian and Indo-Aryan words and loanwords in ancient Greek. In a detailed review of the work's first edition of 2005, Schmitt 2007, 86 comments that in spite of several shortcomings, Brust's monograph is an important contribution to

scholarship as it constitutes the first systematic treatment of the Indo-Iranian lexical material in Greek. In a discussion of the question of Herodotus' knowledge of Iranian languages, Schmitt 2011 emphasises the political and linguistic contacts between Greeks and Persians during the Achaemenid period and Herodotus' interest in languages. With special reference to Athenaios' work "Deipnosophistai", Huyse 1990 discusses Iranian loanwords in Greek authors and lexicographers, including παρασάγγης, ἀσκανδής, ἀστάνδης, ἄγγαρος, σχοῖνος, βατιάκη, σαννάκιον, σάννακρον, σοῦσον, λάβυζος, σάρᾱπις, καλάσιρις, ἄκταια, γαννάκης, καυνάκης. Schaffner 1993 [1994], 234 adduces Hesych's gloss βριτός · ἔτος as evidence for Iranian *brī* 'to cut, shear'. Schwartz 2015 studies the term *grastapatis*, which occurs in a 4th century BCE Greek inscription from Mylasa in southwest Anatolia, and analyses it in the light of OAv. *grēhma-* (see no. 79 below s.v.).

Gippert 1993 studies ca. 50 Iranian loanwords in Armenian and Georgian, and Olsen 2005 presents Armenian evidence for Iranian dialectal diversity. Folmer 1995 discusses linguistic contacts between Old Persian and Aramaic, and Ciancaglini 2005 and 2006 Iranian loanwords in Syriac.

### 79. Studies of individual words

The list of word studies provided here continues Kellens 1991, 26–31, and supplements the one by Tremblay 2008, 33–39.

Order of the alphabet: *a, ā, â, ã, ä, å, ß, b, c, d, ð, e, ē, æ, f, g, ġ, γ, h, i, ĭ, j, k, m, n, ñ, ŋ, o, õ, p, r, s, š, ś, t, ț, θ, u, ū, v, x, ý, y, z, ž*

*aδbadāiti-* Macuch 2012, 2012a, 524–536 discusses the Av. term, whose literal meaning is 'placing on the road', and the legal contexts of its MP cognate *adwadād*.

*aēsma-* Catt 2014 examines the discrepancies in root vocalism and root-final consonants *-s* in Av. and *-dh* in Ved. of the otherwise apparently semantically and morphologically identical pair YAv. *aēsma-* 'firewood', Ved. *idhmá-* 'id.'. He suggests that both nouns derive with suffix *-ma-* from an underlying *s*-stem, whereby *aēsma-* would go back to *\*Hajd<sup>h</sup>-s-ma-*, with full-grade root and zero grade suffix, *idhmá-* would derive from *\*Hid<sup>h</sup>-s-ma-*, with both zero grade root and suffix.

*aēta-*, *aētā-* Fischer & Ritter 1991 argue that the YAv. stems *\*aēta-* 'share' ("das gebührende Teil"), and *aētā-* 'liability to punishment' ("Strafbarkeit") posited by Bartholomae 1904, 11–12, 19, are ghost words. Instead, all attestations belong to the demonstrative stem *aēta-* 'this'.

*ašman-*, *ašman-* 'syllable'. Reconstructing Indo-Iranian *\*Hapsman-* as the prehistoric form of OAv. *ašman-*, YAv. *ašman-* 'part, section', de Vaan 2012, 35–36 envisages different etymological scenarios. He suggests connecting this noun with Av. *°apah-* 'work' (PIE *\*h<sub>3</sub>épes-*), or, alternatively, with the PIE root *\*h<sub>2</sub>ep-* 'to fit, join' and, possibly, *ápsas-* 'breast, forehead, front'. According to Hintze 2007,

- 2–3, the OAv. expression Y 46.17 *afšmānī ... nōiṭ anafšmaq̃* ‘in verses ... not in non-verses’ specifically characterises the presentation of what in Ved. is termed the *dānastuti*- ‘praise of the gift’.
- ayūiriia*- Cantera 1999, 46–48 connects the hapax legomenon *ayūire* in Vd 20.9 (= 21.18 and 22.21) with the adj. *ayrū*- ‘unmarried, not pregnant’ (Ved. *agrū*-) and interprets *ayūiriia*- as the name of parasites or diseases that prevent pregnancies.
- agēniia*- Balles 1997 argues that Av. *agēniā*-, Ved. *ághnyā*-, *aghnyā́*- (< *\*ṇ-g<sup>wh</sup>n-iō*-) ‘prize cow’ are cognates of Grk ἄφ(ε)voς ‘wealth’ (< *\*ṇ-g<sup>wh</sup>n-es/os*). Maintaining that the Indo-Iranians would never have expressed the killing of a sacrificial animal by means of the verb *\*j<sup>h</sup>an*- (< PIE *\*g<sup>wh</sup>en*), which was used for the legitimate killing of foes or the illegitimate murder of allies, Jackson 2014, 104 suggests that Indo-Iranian *\*a-g<sup>wh</sup>n-iā*- specifically means ‘not to be killed’ in a situation outside the ritual context, rather than being an epithet of milch cows that were considered to be too valuable to be killed under any circumstances.
- ahaxšta*- ‘uncountable, innumerable’ is connected with Khot. *akamkhišta*- ‘innumerable’ by Emmerick 1992, 177.
- ahu*- Eichner 2002, 136–140 connects Av. *ahu*-, Ved. *ásu*- with Hittite *hassu*- ‘king’, rather than with the verb *ah* ‘to be’ as in Mayrhofer 1992–2001 I 147, and argues that Indo-Iranian *\*asu*- specifically means ‘engendered life’ (“das gezeugte Leben und die durch die Zeugung übermittelte Zeugungsfähigkeit”, p. 138). Swennen 2016a examines the role of the formula *uba- ahu*- ‘both existences’ in the liturgy of the YH. He suggests that the expression designates the ultimate goal of the ritual, which consists in the unification of the mental and physical lives in eternal life.
- ahura*- Hintze 1998, 147f. and 2015, 32 discusses the attestation of the divine name, in a neo-Assyrian text, *<sup>D</sup>as-sa-ra <sup>D</sup>ma-za-áš*, whose first part has been taken as an attestation of Indo-Iranian *\*asura*- with an unchanged intervocalic *-s-* in Iranian. Narten 1996, 73–77 surveys the use of *ahura*- in OAv. and YAv. and notes that the noun refers to a range of both human and divine beings. She rejects the theory that *ahura*- denoted a specific group of gods in PIr. According to Kellens 2013, 63f. there is a stanza in each Gāthā that distinguishes between an anonymous *ahura*- and *mazdā*-.
- ahuraδāta*- Considering the adjectives *ahuraδāta*- and *mazdaδāta*- to be synonymous, Panaino 1992 argues that their distribution is governed by metrical considerations (cf. below s.v. *mazdaδāta*-).
- aiβiiāxšaiia*- Werba 1999 suggests that the YAv. pres. stem *aiβiiāxšaiia*- is denominative from an OIr. stem *\*abī-axša*-. The latter would be an *entheos* compound ‘having the eyes around’ and a cognate of Ved. *ádhy-akṣa*- ‘supervisor’.
- aiβiθiiō* Differently from Bartholomae 1904, 91, who accepts an earlier explanation by Geldner in interpreting the hapax legomenon *aiβiθiiō* in Vd. 18.17 (= 18.25) as

the nom.pl. of *\*aiβi-sī-* from the root *si* ‘to lie’ with “Persian” *š* instead of *s*, Cantera 2012–4 suggests that *-šiiō* represents the nom.pl. of the root-noun *°dī-*, Ved. *dhī-* ‘vision, perception, thought’ (< Indo-Iranian *\*°d(h)iH-*), with sporadic devoicing of *θ* instead of *δ*.

*aiβiθūra-* Janda 2005a, 267 provides support for Hoffmann’s equation of Av. *aiβiθūra-* as ‘unshakable’ with Ved. *á-vithura-* in the form of the verbal root Av. *\*vīiaθ* (Ved. *vyath* ‘to falter, waver’), which he identifies in Yt 10.80 *vīθiši* (q.v.).

*aiβisrūθrima-* *aibigaiia-* Translating the name of the evening watch as ‘the time of chanting characterised by attentive listening’, Hintze 2003 argues that the name lexicalises two aspects of the same process, one being the ‘singing’ (*aibi-gā*) of the sacred texts, the Avesta, and the other the ‘attentive listening’ (*aiβi-sru*) to such a recitation. On the basis of N 60, she suggests that the evening watch was the time when members of a household audibly recite Avestan texts at or near their homes while carrying on with their ‘works of pasture’.

*aiiehiā-* Schwartz 2008 [2012] analyses this hapax legomenon in Vd 21.17, left unexplained by Bartholomae 1904, 161, as the OAv. form of a derivative with suffix *\*-ia-* from *aiia-* ‘metal’. He suggests that *aiiehiā-*, the name of a demoness who afflicts childbirth, embodies the hard and bellicose connotations of bronze (pp. 96–97).

*aniiō.ṭ kaēša-*, *aniiō.varəna-* Panaino 1993 argues that these compounds denote people of religions other than that of the Dāēuua-worshippers.

*aṇha-* Fischer & Ritter 1991 [1992], 13 argue for the non-existence of the noun *aṇha-* ‘Lager, Lagerstätte’, which Bartholomae 1904, 106 posits for the form *aṇhaṭ* in Vd 15.21. Instead, they interpret the form as the 3sg. subj.pres. of the verb *ah* ‘to be’.

*airīia-* Kellens 2003, 102f., 107 suggests that Av. *airīia-*, MP *ēr* correspond to Ved. *ārya-* rather than to *aryā-*, and that the term has been re-interpreted in the narrative of the mythological origins of the Iranian peoples. He concludes that *airīia-* is an ethnic term which is specific to the Iranians and should be translated as ‘Iranian’ rather than ‘Aryan’ (p. 108). Gnoli 1993 examines the ethnic and religious connotations and notes that the Grk term *Arianē* coincides with the lands located east of the Iranian plateau and described in Yt 10.13f. and Vd 1. He argues that the concept of *ērānšahr* has political, religious and ethnic connotations, is a product of the first half of the 3rd century CE and forms of a systematic programme of Sasanian political propaganda. The notion of Iran as an ethnic and a religious idea, however, has a history that goes back well into the first millennium BCE.

*airīiāman-* According to Haudry 1993, 185–186 Indo-Iranian *\*ariāmān-* represents an IE compound *\*erī-ṇme/on-* with the zero grade form of *nāman-* as second term. It would denote the name of a clan in contrast to names of individual families. Without entirely excluding Haudry’s reconstruction, and while noting that *-man-* is

- usually a primary suffix, Schneider 2010, 102–106 posits a secondary abstract noun derived with suffix *-man-* from the adj. *\*arīá-* and concludes that Av. *airiāman-* could point towards an Indo-Iranian neuter *\*arīāman-* that existed alongside the masc. *\*arīāmán-*, which is continued in Ved. *aryamán-*.
- airiiana-* Gnoli 1993, 15–17 emphasises that in the Avesta the expression *airiiana-vaējah-* denotes the homeland of Zarathustra rather than that of all the Iranian peoples.
- airiio.xšuθa-* Rejecting Panaino's 1990, 127 preference for the reading *airiio.šišat*, Kellens 2003, 106 interprets this name (or attribute) of a mountain in Yt 8.6 and 37 as 'where the Iranians sneeze' ("où les *airiias* éternuent"). He suggests that the second term of the compound is based on the root *xšu-*, otherwise unattested in Av., which corresponds to Ved. *kṣu-* 'to sneeze'.
- anādruxti-* Durkin-Meisterernst 2017 discusses the passage *para anādruxtōi* in Yt 19.33 and suggests that the phrase could result from the contamination of two clauses.
- anāhitā-* Various interpretations are surveyed by de Vaan 2003, 66f. and Kellens 2002–3. Elaborating on an etymology proposed by Gotō 2000, 160–161 (and earlier by Hertel 1927, 20 and n.1, 22), according to which *anāhitā-* is formed from the root *hā* 'to bind' (PIr. *\*an-ā-sH-tā-*), Oettinger 2001 argues that the name of the goddess derives from her characteristic quality, that she represents a rushing, 'unbound', 'unrestrained' torrential river, streaming down from the mountains into an enormous lake. Although the geographical location of this river remains uncertain, he suggests that the name might imply the Oxus river originating in the Pamir mountains and flowing into the Aral Lake. According to Kellens 2002–3, 324, by contrast, the name 'unbound' denotes the idea that *Anāhitā* is free from being subject to any cycle (*ratu-*) of nature, in contrast to Mithra, whose role is tied to the alternation of day and night. Assuming that the three adjectives *arəduuī-*, *sūrā-* and *anāhitā-* are epithets of the goddess, Pirart 1997a, 156–159 suggests that her personal name is *hī-*, on the basis of the formula Yt 5.1 etc. *yazaēša mē hīm spit-ama zaraθuštra yəm arəduuīm sūrəm anāhitəm* and Yt 5.120 *mīšti zī mē hīm spit-ama zaraθuštra vārəntaēca* etc. Kellens 2002–3, 325 endorses this interpretation, which would entail a figura etymologica *hī- anāhitā-* 'unbound bond', while Pirart 2003, 200 fn. 3 retracts his own earlier proposal. According to Skjærvø 2013, 113, 119 n.3, the three adjectives *arəduuī-*, *sūrā-* and *anāhitā-* qualify an omitted, or gapped, noun 'water' (*ap-*). He contends that, contrary to Pirart's 1997a claim, consecutive enclitic pronouns are in fact found in Avestan and that it is therefore legitimate to interpret *hīm* in Yt 5.1 etc. as the acc.sg. of the 3<sup>rd</sup> person pronoun. Skjærvø discusses the phenomenon that both Av. *anāhitā-* and its rendering in Pahlavi, which may be read as both 'wnst' and 'nwsť', allow for the interpretations

‘unsullied’ (Pahl. *awinast*) and ‘unattached’ (Pahl. *aniwast*, < OIr. *\*a-ni-basta-*). Malandra 2013 discusses the question of how Pahl. *anāhōgēnīd* ‘undefiled’ came to gloss *anāhitā* ‘unbound’. Vegas Sansalvador 2016 studies three features shared by *Anāhitā* and the Greek goddess Artemis, namely their function as helpers in childbirth, their connection with rivers and marshy grounds, and their being ‘unbound’, i.e. virgins.

*anhuia-* see below s.v. *ašaiia-*.

*aojiš* Panaino 2002, 79 suggests that the form *aojiš* in Yt 15.46, which Bartholomae 1904, 41 regards as very doubtful (“sehr zweifelhaft”), is a corrupt form of *aojištō* ‘strongest’.

*aoxtō.nāman-* Panaino 1994, 172–173 interprets the phrase *aoxtō.nāmana yasna yaz-* as the technical term of the ritual worship of a deity with an Avestan hymn.

*apaiiaṇt-* The verb *ā-pā* ‘to observe’, which Sims-Williams 1989, 257 recognised in the form *apaiiaṇtahe* in Y 9.31 (rather than *ap* ‘to reach, obtain’, as suggested by Bartholomae 1904, 71), is also attested in Sogd. *”p’y* ‘to perceive, recognise, understand’ (< *\*ā-pā/aya-*, Sims-Williams & Durkin-Meisterernst 2012, 15), and in the Bactr. adj. *αβαδο* ‘cultivated’ < *\*ā-pāta-*, in the phrase *αβαδο κῑp-* ‘to cultivate’, NP *ābād kardan* (Sims-Williams 2007, 181). The form *apaiiaṇtahe* shows the YAv. shortening of prevocalic *\*(-)āi-*, *\*(-)āy-* in the pretonic position, on which see Hintze 2014, 22. The clause Y 9.31 *aṇhā daēnaiiā mās vaca daṇānahe nōiṭ šiiāoṇnāiš apaiiaṇtahe* means accordingly, ‘who focuses his mind on this religion with his word, while not observing (it, i.e. the religion) with his actions’.

*apāuuaiia-* Schmitt 1999 analyses Av. *apāuuaiia-* (Vd 2.29 and 37) as a compound of *apa* ‘away’ and *\*āuuaiia-*, the Iranian counterpart of Ved. *āvayá-* ‘mating instinct, sexual appetite’. The meaning of the Av. compound would be as a Bahuvrīhi ‘whose sexual appetite is gone’.

*ape* De Vaan 2008 argues that *ape* in Y 19.8, for which Bartholomae 1904, 82 posited a separate entry, is a spelling error for *aipi*. The latter form postulated by de Vaan is in fact attested in some of the manuscripts that have recently become available online in the Avestan Digital Archive, including the Iranian Yasna Sāde mss. 0015\_MZK4, 0060\_ML15285 (where the first *i* is crossed out) and 0082\_MZK3.

*ar* Various homonymous roots *ar* in Indo-Iranian and their IE antecedents are surveyed by Hintze 2000, 73f. and Kümmel 2000a, 253–255, who also examines the aorist formations of the roots *ar* in Indo-Iranian, and by Tremblay 2006, 306f. Distinguishing between *’ar* ‘to set oneself in motion’ (IE *\*h<sub>3</sub>er*) and *²ar* ‘to reach, arrive’ (IE *\*h<sub>1</sub>er*), Hintze 2017 analyses the form *frēraṇti* (HN 2.9, Vyt 8.4) as the nom.sg.fem. of the participle of the active thematic aorist *fra-ar-a-* of *²ar* ‘to reach, arrive’; see also no. 58 above: Aorist.

*ard* Lühr 1994, 87–91 interprets the form *uzərəidiāi* in Y 43.12 and 14 as the 1sg. subj.mid. of the present stem *ərəidiia-* (Ved. *ṛdhya-*) of the root *ard* ‘to succeed’, rather than as an infinitive in *-diiāi* of one of the homonymous roots *ar*, see also above, p. 24f.

*arəduuī-* Tremblay 1999a, 285–286 and Kellens 2002–3, 321–322 survey different interpretations. The latter posits an adj. *arədu-* as the derivational basis, a variant of OAv. *arədra-*, from the root *rād*, Ved. *rādh* ‘to succeed’, and translates *arəduuī-* as ‘the competent, successful one’ (“la compétente”, “celle qui réussit”). Schmitt 2012, 366–368 finds an attestation of *arədu-*, the masc. derivational base of *arəduuī-*, in the OP personal name *ardumaniš* (DB 4.86). De Vaan 2003, 259 suggests that the consistent YAv. spelling *arəduuī* (nom./voc.sg.) results from the lengthening of *-i* after *-Cuu-* at the end of a word, rather than being an OAv. feature.

*arənauuācī-* Remmer 2006, 214–225 analyses this female personal name as ‘pronouncing the guilt’ (“die Schuld aussprechend”), see no. 65 above: Onomastics.

*arəθəmañt-* Tucker 1998, 109f. and 2009, 523 suggests that, in the expression *arəθəmañt bairišta* (Yt 12.7), the hapax legomenon *arəθəmañt* is the direct object of the superlative *bairišta-*. Positing the literal meaning of *arəθəmañt* as ‘what is equipped with an object or purpose’ (Av. *arəθiia-* ntr. ‘cause, lawsuit’), she translates the expression as ‘who best supports the cause’. Accepting Tucker’s analysis, Goldman 2015, 131–134 renders the attribute of Rašnu as ‘best supporter of the judiciary’, and relates it to the god’s intercession in the *varah-* ‘ordeal’ and his character as the genius of justice.

*aršan-* Pronk 2009 argues that Av. *aršan-*, Ved. *(v)ṛṣabhá-*, *vṛṣan-* and Grk ἄρσην, ἔρσην are etymologically related and are based on an IE noun *\*uērs-n-* ‘male animal’ and an IE root *\*uṛs* ‘to desire, be ready for’, with loss of the initial *\*u-* in some forms in Indo-Iranian and in Grk

*asah-* ‘place’. Jamison 1991, 82 fn.9 discusses the connection between Av. *asah-* and Ved. *āśā-* ‘space, area’.

*ascūm* Lubotsky 2002 argues that the form *ascūm* (Vd. 8.63–65 and 9.23) is the acc.sg. of a thematic stem *ascuua-* rather than of a *u-*stem *ascu-* as posited by Bartholomae 1904, 211. According to Lubotsky, *ascuua-* goes back to PrAv. *\*asčīya-* and, together with Ved. *aṣṭhīvā(nt)-* ‘kneecap’, derives from an Indo-Iranian compound *\*HastčiHya-*, which would mean ‘shin, shank’ rather than ‘knee-joint’.

*asrāuuaiiaṭgāθā-* Panaino 2013 examines the attestations of this YAv. compound and suggests that it entails the existence of priests who refused to recite the Gāthās and were opposed to the cult promoted by the Avesta.

*asta-* ntr. ‘home’. García-Ramón 2012, 160f. and fn. 49 surveys the various meanings that have been proposed for the IE root *\*nes* ‘to get in contact (with the desired goal)’, which in Av. only occurs in nominal forms.

<sup>1</sup>*asti-* m. ‘guest’. Pinault 1998, 468–470 derives Av. *asti-*, Ved. *átithi-* from Indo-Iranian *\*átHti-* < PIE *\*h<sub>2</sub>o-th<sub>2</sub>-ti-* ‘the one who stays close’ (“qui se tient auprès”). Ramharter 2012, 242–247, who doubts Pinault’s reconstruction involving the existence in Indo-Iranian of the preverb *\*h<sub>2</sub>o* and of a variant without *\*s-* of the root *\*steh<sub>2</sub>* ‘to take position’, like Pinault posits a personified *ti*-abstract, but reconstructs the prehistoric form of Av. *asti-*, Ved. *átithi-* as *\*ṇ-th<sub>2</sub>-ti-* ‘non-stealing’, personified as ‘non-thief’. The formation would be of the type Ved. *á-diti-* (*\*ḡ-dh<sub>1</sub>-ti-*) personified as ‘non-binding’. The noun *\*ṇ-th<sub>2</sub>-ti-* would denote the dear, welcome guest and contrast semantically with PIE *\*g<sup>h</sup>ós-ti-* (Lat. *hostis* etc.) as the ‘seized’ stranger, guest (p. 254).

<sup>3</sup>*ašti-* f. a unit of measure. Abandoning Henning’s connection with PIE *\*h<sub>2</sub>ok-* ‘pointed’, de Vaan 1997a [2000], 241 derives <sup>3</sup>*ašti-* as a *ti*-abstract *\*h<sub>2</sub>ṇk-ti-* from the root *\*h<sub>2</sub>nek* ‘to reach’ and interprets the noun as denoting the ‘stretching’ (Ved. *áṣti-* ‘reaching’) of (twice) the four fingers of a hand, without the thumb, when counting (*uzašti-*) and measuring (*ašti.masah-* ‘of the size of a stretching (of four fingers)’).

*astō.vīdōtu-* Andrés-Toledo 2010, 105–122 discusses the Av. and MP attestations of this demon.

*aša-* ntr. ‘order, truth’. Cantera 2003 argues that As. *aša-* derives from a Plr. zero-grade form *\*ṛta-* and agrees in its ablaut grade with the rest of the Old and Middle Iranian languages. The OAv. form would have been *\*áhrta-*, which further developed to *\*áhra-* and, by way of a special development in word initial position, resulted in YAv. *\*áhra-*. In the course of the Avesta recitation the voiceless *-r-* would have come to be pronounced as a lateral fricative by the time the Avestan alphabet was invented and denoted by the special letter *š*, as outlined by Hoffmann 1986, 173, 179 (= 1992, 847, 853), and the word came to be written as *aša-*. Hintze 2007, 53–58, who surveys this and other interpretations of the morphology and semantics of this word, draws attention to the full grade forms *arəta-* attested in various compounds, concluding that they support a derivation of *aša-* from the full grade root, and she assumes that the substantivization of Indo-Iranian *\*H<sub>1</sub>tá-* → *\*úrta-* is an innovation setting Avestan apart from the other Old and Middle Iranian languages. Ahmadi 2015a studies the semantics of *aša-* in an Indo-Iranian perspective and proposes the translation ‘cosmos’ in the sense of the ordered, perfect world “as an object of eschatological longing” (p. 313). According to Ahmadi 2012, 530–533 and 2013a, 866 fn.18, in the Gāthās the adnominal *aṣāṭ hacā* literally means “being oriented to (the domain of) *aša-*” and implies the meaning



“soteriological”. Skjærvø 2003a examines the OIr., Mlr. and Ved. sources for three types of conflict (cosmological, social and eschatological) that result from the opposition between cosmic Order (*aša-*), which is real and true (*haiθiia-*), and the Lie (*druj-*), which merely seems to be real. Nichols 2016 discusses how the Iranian concept of *aša-* is presented in Greek sources.

*ašaiiā-* Rejecting Hoffmann’s proposal, *apud* Kellens 1996, 57, that *ašaiiā-* means ‘striving for truth’, Tucker 2004, 557 fn. 20 suggests that *ašaiiā-* represents a secondary noun created on the basis of the adverb *ašaiia* ‘in the right way’, which like Ved. *ṛtayā* is employed to indicate ritual correctness. She translates the expression *ašaiia vanhuiia* (Vd 18.34 etc., for attestations see Bartholomae 1904, 244 s.v. *ašaiia*) as ‘by good performance of truth’, and suggests that the secondary noun gave rise to the verbal stem *ašaiia-*, which in turn provided the model for the nonce formation *anhuiia-* (A 4.4).

*ašəmaoya-* Deriving *ašəmaoya-* from *\*ṛta-maughā-*, Skjærvø 2003a, 401f. discusses the attestation in Y 9.31 and posits the meaning of this YAv. compound as ‘who obfuscates Order, shams/pretends Orderly behavior’.

*aθauruna-* ‘priestly service’, *aθauruuan-* ‘priest’. Hintze 2009, 175–179 discusses the form and function of these terms.

*auruna-* Swennen 2003 analyses the Av. attestations (in addition to those of the Ved. cognate *aruṇá-*) and argues that in the Avesta the adj. no longer has its etymological meaning of ‘ruddy’, but means ‘wild’ from the Gāthās onwards. According to him, the RV, where the fem. *aruṇī-* describes the cow and the dawn (*uśás-*), reflects an earlier, more archaic stage. He suggests that the celebration and the cult of the goddess *uśás-* *aruṇī-* has disappeared in the Avesta and been replaced by the cult of Mazdā.

*auruš.aspō.staoiiehīš* For this compound in Yt 5.7, see above, p. 27.

*auruša.bāzu-* Piras 2003 studies this attribute of the Good Daēnā in H 2.9 in the context of IE poetic language.

*auu* ‘to help’. García-Ramón 2012 traces the semantic shifts of the verb *\*h<sub>2</sub>eyh<sub>1</sub>-* from its meaning ‘to run (to/for)’ attested in Anatolian, to ‘to assist, help’ in some IE languages, and to ‘to seek, desire’ in others. Cf. below s.v. *auuaṇha-*.

*auuah-* Hintze 2009a argues that the noun *auuah-* ‘water’, posited by Bartholomae 1904, 178, is a ghost word.

*auuaṇha-* ntr. ‘provision’. García-Ramón 2012, 163f. and fn. 62 (references) suggests that the word family of YAv. *auuaṇha-* (Ved. *avasá-* ntr. ‘food’) may have developed the meaning ‘to be greedy, eat (greedily)’ by semantic specialization from ‘desire (food)’. It then belongs to IE *\*h<sub>2</sub>eyh<sub>1</sub>-* ‘run (to/for)’ (Av. *auu* ‘to help’, see above s.v.). García-Ramón’s explanation dispenses with a homonymous root Ved. *\*<sup>2</sup>av* ‘to eat’ (IE *\*h<sub>2</sub>ey*, Rix *et al.* 2001, 274; Hintze 2009a, 119).

*ax<sup>v</sup>arəta-* Hintze 1994, 237–240 interprets this epithet of *x<sup>v</sup>arənah-* as a formation with shortened preverb *ā* meaning ‘gleaming’ (lit.: ‘having gleamed’), while Panaino 2002a, 93 and fn. 2 prefers the interpretation with privative *a-* meaning ‘not burnt up’. With reference to the rendering of *ax<sup>v</sup>arəta-* in Pahlavi as *agrif* and the Bactrian form *χοαρδο* [xward] ‘taken’ (< OIr. *\*hyarta-*, Sims-Williams 1997a, 24), Humbach & Ichaporia 1998, 15–16 endorse Bartholomae’s ‘unseized, un-taken’. By contrast, Nikolaev 2012–2013, who argues for the etymological connection of *x<sup>v</sup>arənah-* (q.v.) with the word for ‘sun’, interprets the “oxymoron” *ax<sup>v</sup>arətam x<sup>v</sup>arənō* as ‘sunless sun’ (p. 217 fn. 130).

*aži-* Oettinger 2010, 279, 283 reconstructs the ancestor form of Av. *aži-*, Ved. *áhi-* as PIE *\*ǵ<sup>whi</sup>-*, rather than as *\*h<sub>1</sub>ég<sup>whi</sup>-* or, as posited by Slade 2008 [2010], as *h<sub>3</sub>ég<sup>whi</sup>-*.

*āfənt-* Accepting the derivation of *āfənt-* ‘rich in water’ from *\*āp<sup>u</sup>ant-*, Hintze 1994, 97 fn. 18 surveys different analyses that have been provided. Referring to Gershevitch’s 1959, 172–174 linking of Av. *āfənt-* with Ossetic words for ‘time’, in particular Iron *afon* and Digoron *afonae*, Kellens 2000, 127–128 suggests that the expressions *frāθbarštəm paiti āfəntəm* (Yt 8.35, 13.54, Vd 21.5) and *frāθbarštəm paiti zruuānəm* (Yt 13.56) contain elliptic forms of *frāθbarštəm paiti zruuānəm āfəntəm* and denote the rainy season, cf. s.v. *θbaršta-* below.

*ārmaiti-* Skjærvø 2002a discusses *ārmaiti-* in the wider IE, especially Indo-Iranian, context. De Vaan 2003, 97–98 explains the long initial vowel of *ārmaiti-*, which replaced Indo-Iranian *\*aramati-* (Ved. *arāmati-* ‘right-mindedness’) at an early stage in the tradition of the Avesta, as deriving from the combination of the noun with its standing epithet *spənta-* ‘life-giving’, which contracted to *\*spantāramaiti-* in most Iranian dialects. Schwartz’s 2000, 15 suggestion that the form *ārmaiti-* shows remodelling by analogy with the first syllable of a Sogd. word which he transcribes as *ārōār*, and as meaning ‘plot of land’, is weakened by the fact that it is based on a Sogd. word that shows spelling variations with one and two initial alephs, *’rō’r*, *’rō’r*, see Benveniste 1940, 245. Razmjou 2001 identifies the Iranian goddess *Spəntā Ārmaiti* in the deity named *Išpandakurtiš* in Achaemenid Elamite. He argues that the name could be a spelling for Iranian *Išpandarmattiš*, since the ideogram KUR, which is used in the name, can also be read *mad/t* in Akkadian.

In a personal communication (e-mail of 9 August 2017), Schwartz revises his remarks of 2000, 15 as follows: “We must proceed from Indo-Iranian *\*aramati-* proper/regular/ harmonious thought’. In the Rig-Veda, the term is both a common noun ‘devotion’, but also the name of a goddess. Skjærvø was right in seeing RV 10.92.5, ‘the rivers ... have run across Great *Aramati*’ as showing that already in Ved. times *Aramati* was an earth goddess (which I would explain as a hypostasis of divine Devotedness). The antiquity of this notion in Iran is shown by the data

from of the Young Avesta, Persepolis (Razmjou 2001), Khotanese, and Armenian. As to why in OAv., as indicated in Schwartz 2000, 13–15, *Ārmaiti* is not an earth-goddess, but a broad divine hypostasis of cosmic Proper Thought which brings things into regular realization (to which I now add Y 30.7), and particularly the realm of nature (which also explains the connection with pastures as at Y 48.11), is due to Zarathushtra's proclivity for abstract divine entities as part of his Godhead, whereby some minor pre-Zarathushtrian gods could be reformulated and recycled into his theology (cf. Schwartz 2006, 485). At the same time, Zarathushtra retained *\*aramati-* as a common noun 'devotion'; the most interesting attestation, which intentionally straddles the categories of *\*aramati-* as human piety and as part of the Godhead, is Y 32.2c 'We choose/accept your good holy devotion, may it be Ours', which seems to be an echo of an ancient formula, cf. RV 7.34.21 'May *Aramati*, seeking goods, be ours'. It may be added that *\*/aramati-/* as 'proper thought' = 'devotion' (Y 45.10a, object of worshipful bestowal) is elaborated in a complex poetic play on *\*aram* 'properly' plus the verb root *man* 'to think' at Y 45.11a-b. Note in this connection that it can be shown by charting the systematic stanza-by-stanza lexemic correlations between Y 46 proceeding forwards and Y 51 proceeding backwards, Y 46.12 *\*/aramati-/* correlates with Y 51.14 */aram/*, cf. the collocation, as a figura etymologica of */aramati-/* and */aram/* at Y 43.10b, indicating that Zarathushtra was very consciously aware of the etymology of *\*/aramati-/*."

*āsna-* Piras 1996 derives this attribute of *xratu-* from the root *san* 'to rise, ascend', rather than *zan* 'to give birth, beget' as suggested by Bartholomae 1904, 341 s.v. '*āsna-* innate'. He also finds the adjective *āsna-* 'rising' in the first term of the compound *āsnō.uruuan-*, which he translates as 'whose soul has risen' (p. 12).

*āsitō.gātu-* Considering the initial *ā-* of this compound as unetymological, Lubotsky 1998 interprets *\*asita-gātu-* as 'of unlain-on couch', i.e. 'who never sees his bed'. De Vaan 2003, 66f., however, objects that this compound lacks the conditions for lengthening of privative *\*a-*, which he identifies as being when *\*a-* is followed by any syllables containing short *a* or *ə*. Instead, following Humbach & Ichaporia 1998, 116, he sees the adj. *āsita-* 'set up, planted' (Y 10.14) in the first term of the compound, and translates *āsitō.gātu-* as 'whose place is set up'.

*ātar-* Lipp 2009 II 349f. and fn.91 provides a full discussion with ample references concerning the etymological and phonological issues of this noun and its inflection.

*āzaiṇti-* According to Pirart 2000, 396–400 the word *āzaiṇti-* derives with suffix *-ti* from the root IE *\*ǵemH* (e.g. in Av. *zāmātar-* 'son-in-law'), and means 'transposition' of a text word by word from one dialect or language to another. By contrast, Benkato 2017, 117f. derives Av. *āzaiṇti-* from the verb *zan* 'to know', with *ā-*

- prefix and *ti*-suffix, and posits the meaning ‘explanation, interpretation (of a sacred text)’. He argues that the inherited meaning is still present in a Manichaean Sogdian text, while elsewhere in Manichaean literature *āzand* is the technical term for the literary category of the ‘parable’. It is a two-part text with a narrative in the first part and the explanation and interpretation of that narrative in the second part. Cantera 2004, 1–4 discusses the attestations and meaning of Av. *āzaiṇti*.
- āzūiti*- Jamison 2011, 23 and 25 endorses Narten’s 1986, 203–205 conclusion that in OAv. *āzūiti*-, generally rendered as ‘butter’ or ‘fat’, still has the meaning of the abstract noun ‘libation’; cf. also below s.v. *xšuuīd*-.
- āžu*- Gershevitch 1996 provides a detailed discussion of the OAv. hapax legomenon *āžu*- in the context of its attestation in Y 53.7 and in the light of the Sogd. cognate ”Ʞw. Skjærvø 1997, 110 and 2002, 58 suggests a connection with Ved. *akṣu*- ‘axle’.
- qsašutā* Segmenting this metrically trisyllabic hapax legomenon in Y 48.1 as *\*ans-šutā*, Schwartz 2006a, 221 suggests a word play *\*ansu-šutā* ‘pressing of the *haōma*-stalks’ and *\*ans-šutā* ‘action(s) of malice’. Ahmadi 2015, 163, 193 notes 53 and 54 discusses earlier interpretations and analyses the word as *\*qs*, the root from which the OAv. *aṅgra*- ‘evil’ is derived, combined with either the loc.sg. of the *ti*-abstract or the nom.pl.ntr. of the *ta*-perfect passive participle of the root *š(ii)u*- ‘to set in motion’.
- bag*- Deriving the stem of the Grk verb σφάζειν ‘to slaughter’ (esp. victims for sacrifice) from *\*s-b<sup>h</sup>ag-je/o-*, Janda 2014, 304–317 connects the Grk verb with Indo-Iranian *\*b<sup>h</sup>ag* ‘to share’ and argues for a ritual connection between ‘slaughter’ and ‘eat’.
- bayā*- Panaino 2013a examines the MP attestations for the meaning ‘giver’ of Pahl. *bay*, with a view to establishing the meaning of OIr. *baga*-. Arguing that in Pahl. the stars are described as *bay*, not because they were considered to be divine beings, but because they were perceived as ‘givers’, he traces the tradition of *bay* ‘giver’ back to the Avesta. He argues that YAv. *bayā*- does not simply mean ‘god’ but still has the connotation of ‘sharer’, particularly in the compound *bayō.baxta*-.
- barəməiiaona*- Janda 2006a, 108 analyses this attribute of a bull (*gəuš aršnō*) in Yt 17.55 as ‘making the womb pregnant, impregnating’.
- barəsmān*- Rezania 2014, 216–218 suggests that the meanings of Av. *barəsmān*- include that of a spread of grass on which the sacrificial gifts were placed.
- barō.x<sup>var</sup>ənah*- Panaino 1992 [1994], 156 argues that this hapax legomenon in Vd 19.37 is based on the expression in Yt 14.2 *baraṭx<sup>var</sup>ənō mazdaδātəm*.
- bā* De Vaan 2009 studies the syntax and etymology of the YAv. particles *bā* and *bōi* and settles on the derivation of *bā* from the PIE particle *\*b<sup>h</sup>o/e*. Sims-Williams 1996, 186 connects Chor. *f* and Sogd. *-β(y)* with Av. *bā* and notes that like Av.

*bā*, but unlike Sogd. -β(y), Chor. f° takes the second position after the first accented word in a clause and has precedence over enclitic pronouns, while Bactr. -βa takes the third position in a clause after the sentence-initial enclitic particle -δi -δo, -δ- (< \*uti; Sims-Williams & Cribb 1995–6, 86f.). Sims-Williams 1996, 184–186 argues that enclitic *-ba* is probably also found in the MMP particles *b'* and *hyb*, and in Pahl. *bē*.

*bāḍa* De Vaan 2015 explains *bāḍa* etymologically as an inner-Avestan derivative of the particle *bā*. On the basis of a review of the attestations he interprets *bāḍa* as a modality adverb meaning ‘clearly, obviously’, and its superlative *bāiḍištəm* as ‘most clearly’. Skjærvø [forthcoming 2018] n.19 objects that de Vaan’s proposal strains the meaning of the passages in question, and that it is contradicted by the meaning ‘ever and again, often’, of *bāḍistān* in a Parthian Turfan text. The Sogd. cognate occurs in a reduplicated phrase βδ βδ ‘again and again’ in Ancient Letter 3.5.

*bāxδr-* Tremblay 2004, 136–138 discusses in detail the various forms of the name ‘Bactria’ and suggests that Av. *bāxδr-* represents an older Bactrian form, before the change of δ to *l*, while Ved. *bāhlika-* (and some Tibetan and Chinese forms) may derive from a slightly later Bactrian form. From a chronological point of view, he separates the phonological development of this group of forms from that of the Western Iranian ones, which arrive at a similar outcome but by a different route (\*xθr > xr > lx, e.g. MP b’hl, NP Balx). De Blois 2013, 270 argues that the YAv. form represents the middle step, which cannot be later than the early Achaemenid period, of the specifically Bactrian shift of post-consonantal θr > δ > *l*. Hintze 2015, 34 surveys the debate on Av. *bāxδr-* (instead of \**bāxəδr-* which would be expected according to Av. sound laws) in relation to Bactr. βαχλο, and concludes that it might be a Bactrian dialect form which entered the recitation of the Avesta in the East Iranian oral tradition. Sims-Williams 2016a surveys the various forms of the name in Old and Middle Iranian languages and provides philological support to Étienne de la Vaissière’s hypothesis, that Bactria/Balkh is referred to both by Chinese forms such as *Fudiye* and by the Sogd. and Bactr. adjectives βxtyk or βγtyk and βαγδδγγo.

*bāṇduua-* Noting that Y 49.1a is employed in Vd 11.4 as a verse line to be recited for purifying the house and as the first in a sequence of mantras, each of which mentions the object to be purified, Tucker 2013a, 218 suggests that OAv. *bāṇduua-*, whatever its literal meaning or function, may represent OIr. \**bānda-*, a cognate of Ved. *bhāṇḍa-* ‘property, household goods’, and, possibly, of Latin *fundus* and, by metathesis, of Av. *buna-*, Ved. *budhna-*.

*bixəδra-* Milizia 2012 analyses *bixəδra-*, a hapax legomenon in Vd 19.21, as ‘instrument of purification’, from PIE \**b<sup>h</sup>ik-tro-* of a root \**b<sup>h</sup>eig-* ‘to purify’, and equates

- it with the Greek adjective ἀφικτρός ‘impure’ (Hesychius). By contrast, Skjærvø 1997c, 121–126, who adopts the reading *baxədrəm* of the Vidēvdād Sāde manuscripts, postulates a noun *baxədra-* ‘spade’, derived from IE *\*b<sup>h</sup>eg*, and a cognate of Ved. *bhañj* ‘to break (up)’. The noun would then be a homonym of Av. *baxədra-* ‘share, portion’ (IE *\*b<sup>h</sup>ag*). Skjærvø’s analysis is accepted by Tremblay 2004, 136, who translates *baxədra-* in Vd 19.21 as ‘épée’.
- brī-* ‘to cut, shear’ in Iranian is studied by Schaffner 1993 [1994].
- būiti* Accepting Darmesteter’s (1892–1893 III xlv–xlvi, II 259 note 4) linking of *būiti daēuuō* (Vd 19.1, 2 and 43) with the Sanskrit name Buddha, Klingenschmitt 2000, 194 suggests that the form *būiti* represents an early Middle Iranian form with the nom.sg. ending *-i* < *\*-əh* < *\*-ah*. De Vaan 2003, 450 fn. 561, however, finds a late date of the form *būiti* difficult to reconcile with the collocation of *būiti daēuuō* with demons of Indo-Iranian pedigree, in particular *indra-*, *sauruuā-* and *nāṇhaiθiia-* in Vd 19.43.
- cā* Kellens & Pirart 1988–1991 I 9 allow only four possibilities in Indo-Iranian for the position of the coordinating enclitic particle *-cā* in the concatenation of three terms, but Ahmadi 2013, 244f. comments that, as far as the Rgveda is concerned, Klein’s 1985, 162–208 repertoire in fact provides evidence for more than four figures, one of which is the pattern XYcaZ, which Kellens’ and Pirart’s “rule” disallows for the Avesta. In particular, Ahmadi argues that Y 30.3b attests the configuration XYcā/Z, which shows an XYca construction in one pāda and an additional term in the subsequent pāda; see also no.44 above: Demonstrative pronouns, p 12.
- cāt-* f. ‘well’. Vijūnas 2009, 108 and fn. 228–230 surveys various explanations for the morphology and inflection of this noun.
- ciciθβan-* ‘perceptive’. Rau 1998, 144f. and fn. 37 analyses the hapax legomenon *ciciθβā* (Y 43.2) as the nom.sg. of a *\*-yan-* stem that forms part of a small series of stems in *\*-u-*, *\*-yi-*, and *\*-yan-* added to the perfect stem and alternating with ‘normal’ perfect participles.
- cikōitərəš* Jasanoff 1997 argues that the form is 3pl.inj.perf. (or: pluperfect), see no.60 above: Perfect.
- cinuuatō pərətu-* Connecting the pres. part. *cinuuant-* with the root *ci* ‘to collect, gather’, Kellens 1988 and 1995a, 48 interprets the expression *cinuuatō pərətu-* as ‘Bridge of the Piler’ (‘Pont de l’entasseur’), the ‘piler’ implying Yima. Cantera 2004a, 100–103, following Kellens, interprets the expression as ‘Piler’s Pass’. Hintze 2007, 198 fn.5 endorses the derivation of *cinuuant-* as being from the root *ci* ‘to collect, gather’, but relates the ‘collecting’ to the good and bad deeds being collected at the Bridge. Similarly Skjærvø 2012, 73 interprets the term as the ‘ford/bridge of the accountant’, denoting the place where, according to the Pahlavi texts, one’s good and bad thoughts, words, and deeds, were totalled and weighed

- on the scales of Rašnu. Schwartz 2010a, 102–103 sees a connection between *cinuuatō* and the compound *vi-ci* ‘to discriminate’ and interprets the Bridge as that of the ‘Selector’, or ‘Examiner’.
- ciθra-* Tremblay 2008, 36 surveys earlier interpretations. Hintze 2005 [2009], 57–58 discusses the meaning of *ciθra-* and endorses the view that similarly to Latin *species*, the semantic range of the single lemma *ciθra-* could encompass both ‘appearance, manifestation’ and ‘seed, origin, descent’. Panaino 2009, 207–215 discusses the passages where *ciθra-* occurs in collocation with *daxšta-* ‘sign, menses’ and argues that in connection with menstruation *ciθra-* denotes the manifestation of female sexual maturity and fertility, the ‘germen’ or ‘manifest (seed)’ of a woman. He suggests that the noun refers to the female reproductive capacity that is ‘visible’ in menstruation and that the semantic value of ‘race, kin, descentance’ might have developed from such a use. Ahmadi 2017 suggests that *ciθrəm* in Y 32.3 functions as an adverb, meaning something like ‘characteristically’ or ‘recognizably’. According to him, Av. *ciθra-* means only (characteristic) ‘appearance’, ‘apparition’, but not ‘seed’, ‘origin’.
- daēnā-* The derivation of *daēnā-* from *\*d<sup>h</sup>aiHjanā-* and Pirart’s 2012, 129ff. proposal of reviving the old connection of Av. *daēnā-* with Ved. *dhénā-* are critically reviewed by Cantera 2013, 97 fn.27. The latter returns to Schindler’s 1972, 27 analysis as *\*d<sup>h</sup>aHjanā-*. For the meaning of *daēnā-*, see above, p 40f. no.75.
- daēuuā-* Various aspects of Iranian demonology are explored in the volume edited by Swennen 2015a.
- daibitā(nā)* Ahmadi 2014b, 49, 63–75 argues that the Gāthic adverb means ‘in twos, together’.
- danarə* Adducing cognates in Greek (θέναρ) and Germanic languages, Janda 1998, 1–14 argues that *danarə* (Vd 16.7) is the petrified acc.sg. of a heteroclitic neuter *r/n*-stem IE *\*d<sup>h</sup>énr̥* denoting a unit of volume for solid and liquid substances of a quantity that fills the hand, a ‘handful’. Janda recognises the *n*-variant of the stem in the second term of compounds, e.g. *tarō.dənan-*, which denotes a measure of length.
- dar* Reading *vīdārəmnō* in HN 2.7, 2.25, Vyt 8.3 (= 55) with the mss. of the Vyt, Hintze 2017, 169f. fn.12 interprets the form as the pres. part. middle of the present stem *dāra-* of *dar* ‘to hold’.
- daxšta-* While Cheung 2007, 70 follows Insler in deriving *daxšta-* ‘sign, menses’ from *dis* ‘to show’, Panaino 2009, 197–205, following an earlier proposal by Burrow, connects *daxšta-* with *daxša-* ‘fire’ and derives both from a secondary root *daxš* of the verb *daj* ‘to burn’.
- daxīiu-*, *daṣṣhu-* Hintze 1994, 284 assumes that in the expression *daxīiunqm zātānqm azātānqmca* in Yt 19.56–64, *daxīiunqm* refers metonymically to the inhabitants of

lands. By contrast, Schmitt 2012, 361–364 and fn. 6 translates ‘lands’ and contends (1999a, 443) that the meaning ‘inhabitants of a land’ would require the positing of two lemmata *¹daǰhu-* fem. ‘land’ and *²daǰhu-* m. ‘inhabitant of a land’, the latter being the etymological equivalent of Ved. *dásyu-* m. ‘enemy’. Sadovski 2001, 109–111 discusses Av. compounds with *°daǰhu-/ °daǰiiu-*, see no. 62 above: Composition, p 25f.

*dā* ‘to give; to set’. Hintze 2007, 162–167 discusses the question of the meaning ‘to create’ of this root.

*dbōišta-* Sims-Williams & Tucker 2005, 594–596 consider the possibility that YAv. *dbōišta-* belongs with OP *duvaišta-* ‘farthest’ (an option that was rejected by Bartholomae 1904 on the grounds that *ṭb-* instead of *db-* would be expected for the Av. form), and they suggest that it shows a State II *\*dyaH-* from *\*dū-* in Av. *dūra-* ‘far’, Ved. *dūrā-* ‘id.’.

*dēuš.srauuah-* see below s.v. *haosrauuah-*.

*draoša-* Buyaner 2015 studies the semantics and etymology of the Av. word and its Pahl. cognate *drōš*, and of the phonologically and semantically similar Pahl. noun *drōz*. Proposing the meaning ‘mutilation’ for *draoša-* and for *drōš*, he argues that *drōš* and *drōz* are reflexes of different extensions of the IE root *\*dʰreyu/dʰru* ‘to diminish, injure, harm’.

*drigu-* Thompson 2002 provides further support for the view, succinctly presented by Narten 1986, 238f. fn. 158, that Av. *drigu-* is primary to Ved. *ádhrigu-*, which would have been subject to re-analysis within Ved. as *adhri-gu-*.

*druca pauruuqna* Reading the formulaic expression, which is attested in Yt 13.99 = Yt 19.85 as *druca pauruuqna*, Hintze 1994, 356f. interprets the pair as two instrumental sg. forms ‘with wood and shaft’ used metonymically in this instance for ‘with bow and arrow’. This interpretation is criticised by Tremblay 1996, 129f. who, following Schindler *apud* Watkins 1995, 162f., reads the expression as two suffixless locatives *\*draoca pauruuqna* ‘in tree and in rock’. Janda 1997, 33–36, 140–158, however, considers the reading *druca* to be a better transmission, and interprets *druca pauruuqna* as nom./acc.pl., which in turn would be based on collectives *\*drū < \*druh₂* and *\*peruōn*, the latter with replacement of the ending *-āra* of the heteroclitic noun with *-qn*. He adduces Vyt 4.6 (= 29) as a third Av. attestation, and finds cognates of the collocation in other IE languages, especially in the Greek formula *δρῦς καὶ πέτρα* ‘wood and rock’. He reconstructs an IE phrase *\*druh₂ & \*peruōr*. Humbach & Ichaporia 1998, 161 and Pirart 2000, 389f. likewise interpret *pauruuqna* as acc.pl., but consider it to be used instead of the instr.pl. and coordinated with the instr.sg. *druca*. According to Pirart, the acc.pl. *pauruuqna* was introduced into the text by a recensor to replace the original form



- of the instr.pl., which he sees attested in Vyt 4.6 (= 29) *paōuruuainišca*. See also below s.v. *pauruuaniia-*.
- dugədar-* Lipp 2009 II 351ff. studies the Indo-Iranian reflexes of PIE *\*d<sup>h</sup>ugh<sub>2</sub>tér-* and Werba 2005 the problem of the vocalisation of the laryngeal in this and other Indo-Iranian words; cf. Hintze 2014, 28f. on the Iranian outcome of laryngeals between consonants.
- ərašī-* m. ‘seer, poet’. Panaino 2015 provides a detailed analysis of the Gāthic stanza Y 31.5, where *ərašī-* (Ved. *īśi-*) occurs as a hapax legomenon, and discusses it in connection with its adjectival derivative *ərašīia-* ‘inspired’ in Y 40.4. He interprets Y 31.5 in the light of the Indo-Iranian concepts of the ‘mental vision’ (*man-*) and the ‘inspired seer’ (*ərašī-*). By contrast, Skjærvø 1997, 109, 111 derives *ərašī-* from the verb *ar-* ‘to obtain’ and translates the noun as ‘desire to obtain’.
- fərasəm* Kellens 1994, 47 interprets the form *fərasəm* in Y 43.9 as the sole witness of an absolutive in *-am* in Av. and adduces RV 7.86.3 *vip̥ścham* ‘in order to inquire’ (translation by Jamison & Brereton 2014 III 901) as a parallel.
- fracarāt-* adj. ‘moving forth’. Vijūnas 2009, 5 discusses different explanations for the formation of this noun and accepts Nussbaum’s analysis as a secondary derivative with suffix *\*-ot-* from the thematic stem.
- fradaθāi* ‘for the benefit of’. Sims-Williams 2009 argues that the Av. dative is continued in the Bactr. preposition *φapo, φapa-, φap-* ‘to, for’, see below s.v. *frād*.
- fraorə* In agreement with Insler 1975, 167, Plath 2006 derives the adv. *fraorə* from *\*pra-vrt*, and connects the form with *vart* ‘to turn’, rather than with *var* ‘to choose’ as proposed by Bartholomae 1904, 976. Plath points out that the type of adverbial compound with a local particle as the first term and a verbal root in the zero grade as second term is inherited from Indo-Iranian, as demonstrated by a form such as RV *an-apāvrt*, and also exists outside Indo-Iranian, cf. Grk *ὑπόδρα* < *\*upo-drk*.
- fraša* On the basis of Bartholomae’s 1904, 1005–06 explanation of this adverb as an old instr.sg. of the adj. *frānc-* (< Indo-Iranian *\*pra-anč-*), but separating *fraša* etymologically from the adj. *fraša-* ‘excellent’, Hintze 1994, 250, 383 fn. 81 assumes that the fem. gender of the form (< *\*pra-ač-īā*, from a stem *\*pra-ač-ī*) derives from an elliptic fem. noun such as *\*dis-* ‘direction’. Cantera 2005, 110f., who objects that the noun *\*dis* is not attested in Av. and that the instr. is not used adnominally, prefers to take the form *fraša* as the instr.sg. of an adj. *\*prāčīa-*, an analysis which Bartholomae had proposed for the adj. *fraša-* ‘excellent’. By contrast, Ahmadi 2014, 912 segments *fraša* as *\*fra-arta-* ‘advancing’, from *ar* ‘to set (oneself) in motion’ (PIE *\*h<sub>3</sub>er*).
- frasrūta-* Forssman 2016 argues that *frasrūta-* means ‘widely known, famous’ when it relates to a person, but ‘clearly proclaimed’ when the object is a text, such as the

Ahuna Vairya-prayer. The two different meanings reflect different meanings of the causative present stem *frasrāuuaiia-*.

*frauuāši-* Haudry 1995 rejects the analysis of Av. *frauuāši-* as a *ti*-abstract from the root *var* and instead revives the derivation from the root *vart* ‘to turn’ with suffix *-i-*. Comparing the Av. word with Germanic *\*wurd-i-*, he posits its meaning as ‘destiny’.

*frād* Sims-Williams 2009 connects Av. *frādaθāi* etymologically with the Bactrian preposition *φapo* [far] ‘to, for, etc.’, which marks indirect objects and beneficiaries, and with Parth. *frh* [fraha] ‘for’. He notes that, like Av. *fradaθāi*, Parth. *frh* [fraha] displays shortening of *-ā-* in the root syllable, while the Bactr. form may go back to a form with either a long or a short root vowel.

*frārənti* (HN 2.9, Vyt 8.4) see s.v. *ar* above.

*fsəratū-* ‘enjoyment, joy, exhilaration’. Hintze 2007, 192–195 argues that this metrically disyllabic fem. verbal abstract noun represents *\*fsratū-* instead of *\*fsratū-*. It is formed either with suffix *-tū-* (Grk *-tū-*) or with suffix *-tu-* transitioned to fem. *-tū-* in the process of the noun’s personification as a female being. The suffix is attached to the thematic pres. stem *fsəra-* of the OIr. root *\*fsar-* continued in Khotan. *ssar-* ‘to exhilarate’.

*gaociθra-* Panaino 2005a argues that the basic meaning of *gaociθra-* is ‘having the shape of a bull’ (‘avente la forma di un toro’, p. 814). As an epithet of the moon (*māh-*) it denotes the curved shape of the crescent moon. According to Hintze 2005 [2009], however, the meaning of *ciθra-* (q.v.) in *gaociθra-* is ‘origin, seed’ rather than ‘appearance’. She suggests that the compound points to the existence in Avestan of the creation myth, found in the Pahlavi sources, according to which the numerous animal species arose from a single respective prototype, whose seed or essence was purified in the moon.

*garō dāmāna-* Jackson 2016, 178 prefers to translate this phrase as ‘house of praise’ rather than ‘house of welcome’, while emphasising that ‘praise, song’ and ‘welcome’ condition each other.

*gātu-* De Blois 1995 studies the semantic development OP *gāθu-* in comparison with its Av. cognate *gātu-* and suggests that the original meaning is ‘walk-way’ or ‘(raised) standing-place’. According to him, the meaning ‘throne’ might be due to Elamite substratum influence and entered Av. from OP.

*gāuš* Tremblay 2002 [2006], 269 fn. 31 interprets the OAv. form (Y 32.8) as the 3sg. of the sigmatic aorist and connects it with a wide range of forms in Middle Iranian languages (e.g. Sogd. *γw-* ‘to be necessary, desirable, to lack’, Bactr. *γao-* ‘to lack’, Chor. *γw-* ‘to be necessary’) and with Grk *χάος*. Hintze 1994, 187–188 discusses the philological and linguistic problems of Y 32.8.

- gərəzdi-* Mehendale 1992 argues that the Av. forms belong with Ved. *gr̥dh* ‘to long for, to desire for, to strive after’. Gershevitch 1996, 70–73 endorses Bartholomae’s 1904, 514f., 524, etymology of this word as a *ti*-abstract of the Av. verb *garəd*, a cognate of Lat. *gradi* ‘to step’. He posits the meaning of *gərəzdi-* as ‘step, grade, rank’.
- gəuš tašan-* Kellens 1995b suggests that the expression *gəuš tašan-* denotes the divinisation of the ritual function of restoring the body of the sacrificial animal during the ritual.
- grauua-* Yoshida 1996 [1998], 169 points out that the connection of Av. *grauua-* ‘stick’ with Sogd. *γrwy* ‘bamboo’ rules out the derivation of the Av. word from *\*graba-* and the root *grab* ‘to grab’, which Bartholomae 1904, 529 n.1 regards as a possible explanation.
- grēhma-* Accepting the old analysis as an *n*-stem *grēhman-* (acc. sg. *grēhmā*) of Indo-Iranian *\*gras* ‘to devour, eat’, Humbach and Faiss 2010, 50–53 consider the noun to be a cognate of Lat. *grāmen* ‘(leaf of) grass’, while Skjærvø 2001, 368–370 and 2002, 56 suggests that it describes the rival poet as a ‘glutton’. Schwartz 2006, 461 fn. 4; 2015 and 2017, who rejects the connection with Ved. *grāsate* ‘devours’, connects *grēhma-* with a root *grah* ‘to press, constrict’ (PIE *\*g<sup>h</sup>res*) and translates *grēhma-* as ‘oppression, oppressiveness’. Tremblay 2001, 188; 2006, 240 and 2006c, 226 finds *\*grahma-* in the Bactrian personal name γοραμβοδο, but Sims-Williams 2010, 56–57 comments that the combination of a personal name and *\*-pati-* seems to be otherwise unattested and that *\*-pati-* results in *-βιδο* elsewhere in Bactrian.
- hacā* Most scholars regard Av. *hacā* ‘from’ as the etymological cognate of Ved. *sácā* ‘together with’ and as a petrified case form of either the root noun *\*sác-* ‘fellowship’ or the thematic stem *\*sāca-* ‘id.’ of the root *\*sek<sup>w</sup>* ‘to follow’ (Mayrhofer 1992–2001 II 688). Dunkel 2014, 726f. fn. 58 and 58a, who endorses this etymology, suggests that the meaning ‘from’ of Av. *hacā* is due to its combination with the separative ablative, and contrast with Ved. *sácā* ‘together with’, which takes the locative case. Schneider 2011 [2012], 140 notes that Av. and OP *hacā* have directional meaning (A away from B towards C), which is also partly found in Ved. *sácā*. Dunkel 2014, 726f. fn. 58 and Scarlata 1999, 31 record the alternative etymology proposed by Forssman 1986, 26 fn.18, according to which Ved. *sácā*, Av. *hacā* are analogically remodelled from an Indo-Iranian instr.sg. *\*sāčā* (< *\*sṃ-h₃k<sup>w</sup>-é-h₁*) and are cognates of Ved. *sākām* ‘together’ (< *\*sṃ-h₃k<sup>w</sup>-ó-m*) ‘seen together with’. According to Hale 1993, 33, OAv. *hacā* means ‘from’ when it is a preposition (e.g. Y 44.17... *hacā xšmaṭ* ‘from you’), but ‘in accordance with’ when it is a postposition (e.g. *ašāṭ hacā* ‘in accordance with truth’).

*haēcaṭaspa-* Tremblay 2002 [2006], 283 suggests that the zero grade ablaut of the suffix of the first term of the compound points to an IE athematic acrostatic intransitive root present 3sg. *\*sēik<sup>w</sup>-ti*, 3pl. *\*sēik<sup>w</sup>-nti*. Nikolaev 2012, by contrast, reconstructs the accent on the suffix in agreement with the accentuation of the compound type Ved. *bharád-vāja-*, while he associates the ablaut grade *haēca-* of the first member of the compound synchronically with the middle stem, which, although otherwise absent from Av., is attested in Ved. *séca-te*. Translating the name as ‘having horses that besprinkle/bathe themselves’, he examines the Indo-Iranian mythological background of this name on the basis of a new interpretation of RV 4.43, and reconstructs an Indo-Iranian phrase *\*saič̌ \*ácūān(s)*.

*haiṭiia-* Lowe 2011, 36 fn.27 argues that the meaning ‘true’ is at least of Indo-Iranian date. According to Skjærvø 2003a, 396, Av. *haiṭiia-*, Ved. *satyá-* refer to ‘true reality’ in the sense of ‘real’, as opposed to mere appearance in the sense of ‘fake, false, not the right one’. Ahmadi 2016 surveys the debate on the semantics of this adjective, and views its meaning in an eschatological perspective.

*haiṭiiō.aīiana-* Positing the stem of this compound, which is absent from Duchesne-Guillemin’s *Composées* (1936), as a masculine *haiṭiiō.aīia-*, Bartholomae 1904, 1762 leaves it without further analysis or exploration of the meaning in the, according to him, “worthless” (“wertlos”) passage Yt 4.5, the compound’s sole attestation. Swennen 2006, 229, by contrast, posits the stem as *haiṭiiō.aīiana-*, and analyses it as an adjective with *haiṭiia-* as first term and, as second term, *aīiana-* ‘path’ (Ved. *áyana-*), which is also found in Yt 10.112 *fraīiana-*. Since in the context of Yt 4.5, the compound refers to the Lie, Swennen suggests that its meaning is ‘qui prétend connaître le chemin conduisant aux dieux’, rather than ‘dont le chemin est divin’.

*hamaspaθmaēdaiia-* Hintze 2009b, 105–111 surveys the debate on this noun and analyses the expression *hamaspaθmaēdaiia- ratu-* as ‘the time belonging to the middle of the path of summer’. It refers to the time of the vernal equinox, when the sun has reached the middle point of its path from the winter to the summer solstice.

*hanarə* ‘without’. Zehnder 2012, 474, 481f. analyses this OAv. adverb (preposition) as loc.sg. *\*syn-er*, formed with suffix *\*-er* from the IE adverb *\*sn̥* ‘apart’.

*haōma-* Taillieu 1994 [1995] concludes that the available textual evidence is inadequate to confirm the botanical identity of Indo-Iranian *\*sauma-*, and Taillieu 2003 surveys the research on this question in the light of its description in the Avesta and Vedas. Clark 2017 revisits the issue and suggest that Indo-Iranian *\*sauma-* refers not to the main ingredient of the drink but to the end-product of ‘pressing’, which is the meaning of the root Av. *hu*, Ved. *su* ‘to press’ from which the noun is derived. In his view, *haōma-* and its Ved. counterpart *sóma-* refer not to a single

- plant, but to the concoction of a combination of different plants, including harmel (mountain/wild rue), *Peganum harmala*, argued for by Flattery and Schwartz 1989, and is typologically similar to the brew called *ayahuasca* used in ceremonies among the indigenous peoples of the Amazon basin.
- haosrauuah-* Rau 2007a argues that the name of the hero and its antonym *dēuš.srauuah-* came about by retraction of the accent to the first syllable and concomitant full grade of this syllable and substantivization. According to him, this derivational strategy was analogically extended to athematic stems and generated an abstract noun *\*(H)háu-srauuah-* ‘good fame’, *\*dáuš-srauuah-* ‘bad fame’ from adjectives *\*(H)hu-sráuuah-* ‘having good fame’, *\*duš-sráuuah-* ‘having bad fame’.
- hapta.srū-* Panaino 1995–6, 199–201 posits a to date unrecognised compound *hapta.srū-* on the basis of a new interpretation of the expression *hapta. srauuō* in Vd 19.42. Translating it as ‘Seven Horns’, he interprets the compound as the Av. name of the Little Bear, or Ursa minor, while *haptō.iringa-* is the name of the Great Bear, or Ursa maior.
- haray<sup>v</sup>haitī-* Schmitt 2001 surveys and discusses the attestations of the name *Ara-chosia* in Iranian and non-Iranian sources and explains the different meanings of the name as resulting from the semantic development of the name of a river to that of a land to that of a place. Stüber 2000 defines the meaning of the IE *s*-stem that is preserved in Av. *\*harah-*, Ved. *sáras-* and Grk *ἔλος* as ‘place where water comes to a standstill’, and of the underlying IE root *\*sel* as ‘to come to a standstill, to remain, dwell’.
- hauua-* De Vaan 2005a argues that the possessive adjective *x<sup>v</sup>a-* (< PIr. *\*h<sub>2</sub>ya-*, Ved. *svá-*) existed only in OAv., and that the YAv. stem *hauua-* results from a replacement of *\*h<sub>2</sub>ya-* by *\*ha<sub>2</sub>ya-* by analogy with other personal and demonstrative pronouns with initial *\*ha-*, in particular the personal pronoun *\*ha<sub>2</sub>* (p. 705). According to him, a stem *huua-* did not exist in YAv. and the YAv. form *huuāuuōiia* (< *\*h<sub>2</sub>ya-b<sub>2</sub>ia*, with *huuā-* instead of *x<sup>v</sup>ā-*) in Y 59.30 escaped replacement by *hauua-* because it was part of the paradigm of personal pronouns (YAv. *māuuōiia* < *\*mab<sub>2</sub>ia*, *xšmāuuōiia* < *\*šmab<sub>2</sub>ia*, p. 706).
- hazaŋhan-* Deriving *hazaŋhan-* from *\*seḡ<sup>h</sup>-es-h<sub>3</sub>on-*, Stüber 2000a, 136f. reconstructs a stem formed with the possessive suffix identified by K. Hoffmann. Goldman 2015, 136–137 discusses the spellings in the mss. of this word with *-aŋha-* and *-aŋuha-*. On the semantic distinction between Av. *tāiiu-* ‘thief’ and *hazaŋhan-* ‘robber’, see Macuch 2005, 381 and fn.19.
- hazaŋrō.zima-* Panaino 2004 studies an Av. fragment preserved at the end of Vd 2.19 in the mss. of the Vidēvdād Sāde, and, as a quotation embedded in the Pahlavi commentary, of the Pahlavi Vidēvdād. He argues that the adj. *hazaŋrō.zima-*, which occurs in the fragment, attests the existence in Av. of a tradition according

to which the time of Yima lasted for a thousand, rather than 900, years, and that this tradition is also attested in Yt 9.10. There is thus Av. evidence for the millenarian concept.

*hāiriš-* Emmerick 1992a, 293 and 337–338 n.19 discusses this word in connection with a postulated IE noun *\*sor-* ‘woman’.

*həndu-* On the basis of Paul Thieme’s etymology and semantic definition of the basic meaning of Ved. *sindhu-*, Av. *həndu-* as ‘(natural) frontier’ in the sense of a barrier or obstacle such as a large river, Panaino 2016a examines a range of problems connected with the linguistic data in the light of Indo-Iranian and Av. mythology.

*hitāspa-* see s.v. *vīštāspa-*.

*hi9u-* Tremblay 1998, 202 argues that the form *hi9qm* (Y 34.10) derives by Stang’s Law from *\*hi9aym*, and is the acc.sg. of the stem *hi9u-*, of which the nom.sg. is attested in Y 48.7 *hi9āuš*, cf. also above no.37 *i-* and *u-*stems, p 6 and fn. 1.

*huuāpah-* Lubotsky 1990, 131 argues for the non-etymological nature of the long *-ā-* in *huuāpah-* ‘of good works’ and that linguistically, *huuapah-* is expected for all attestations of this compound. This view is endorsed by Stüber 2002, 110 and de Vaan 2005, 62.

*hū* Tucker in Sims-Williams & Tucker 2005, 600–601 surveys present stems of the Indo-Iranian verb *\*suH-* ‘to impel’ and argues that in OIr. the full grade State II root *\*hūā* had developed a secondary root meaning ‘to have authority, to be authoritative’, for which the nasal present stem *hunā-* may have provided present forms with transitive value ‘to authorise, to make authoritative’.

*huuōišta-* According to Sims-Williams & Tucker 2005 [2006], 594–596, *huuōišta-* ‘most important, oldest’ (cf. Khotanese *hvāṣṭa-* ‘best, chief’, ‘teacher’, Sogdian *xwyštk* ‘teacher’, *xwyštr* ‘superior’, Bactrian *χουαχο*, *χουαδαπο* ‘elder, greater’), probably shows an inherited Indo-Iranian State II *\*hūaH-* from the root *hū* ‘to impel’ (< Indo-Iranian *\*suH*), just as OP *duvaišta-* ‘farthest’ (and YAv *dbōišta-*, if it has the same meaning) shows a State II *\*dūaH-* from *\*dū-* preserved in Av. *dūra-*, Ved. *dūrā-* ‘far’.

*išarə* Oettinger 2012, 209–210 connects the Av. adverb *išarə* ‘at once’ etymologically with Grk *ἵκταρ* ‘nearby’.

*jahikā-*, *jahī-* De Jong 1995, 29 notes that a version of Vd 18.62 is quoted in Hērb. 12.4, but with *jahi* of Vd 18.62 substituted by *nāirika*. He argues that *jahikā-* and *jahī-* refer to real life, often married but sexually suspect women, who endanger the legitimacy of their husbands’ offspring by their promiscuous behaviour. Doubting Bartholomae’s 1904, 606 connection with Ved. *has* ‘to laugh’, but leaving the etymology open, Kellens 2013a argues on the basis of its contexts that *jahikā-* denotes a woman who fails to conform to the religious norms prescribed by the Avesta, rather than a prostitute, as postulated by Bartholomae.

- jan* García-Ramón 1998 studies the verbal character of the root *jan* ‘to hit’ and argues that the root present forms point to the iterative meaning ‘to hit repeatedly’ of the IE root *\*g<sup>wh</sup>en*. García-Ramón 2000 discusses Indo-Iranian root presents and iterative verbal character. Cf. also s.v. *agəniia-* above. Skjærvø 2001, 361 fn.29; 2002, 52 fn.72; 2004, 161–162 interprets the much-debated form *ajən* in Y 48.10 as the Av. equivalent of Ved. *áhan*. Following Pirart, MSS 47, 1987, 176, Kellens & Pirart 1988–1991 II 243, 231, III 273 and Skjærvø 2004, 278 and fn. 39 analyse the forms *jənəraqm xrūnəraqmcā* in Y 53.8 as 3sg.ipt.pres.mid. of the roots *jan* ‘to hit’ and *xrū* ‘to wound’ respectively. Hintze 2005, 250–252 provides further support for Insler’s emendation of Yt 10.40 *niyrāire* to *\*niynāire*, the 3pl. stative of *jan* ‘to hit, slay’, of which the 3sg. stative *niyne* is attested in Yt 10.104 (= Y 57.29).
- jani-* Pirart 1993 suggests that in Y 10.15 the form *janiiaoš* edited by Geldner 1889–1896 I 53 with the ms. K4 *jahiiāōš*, is to be preferred to *janiīōiš*, which Bartholomae 1904, 604 reads with Pt4 and many others mss. Pirart further proposes to emended *janiiaoš* to *\*janiiuš*. The latter form would represent a gen. sg. form that corresponds to the Ved. gen.sg. *jányuḥ*.
- kahrpuna-* De Vaan 2000, 284 connects this name of a daēvic animal in Vd 14.5 with Chor. *krbwn* ‘lizard’ and analyses it as *\*kárp-*, for which he suggests the meaning ‘frog’, and the Indo-Iranian suffix *\*-una-* used in animal names in both Ved. and Iranian.
- kakahiiu-* Remmer 2006, 58 and 2012 analyses the name of the mountain in Yt 19.4 as a compound consisting of the interrogative stem Indo-Iranian *\*ká-* prefixed to *\*kahiiu-* (< *\*ka-kas-ju-* ‘how split!’), the Av. root *kah* being a cognate of Ved. *kas* ‘to split’.
- kar* ‘to do’. Regarding the unique form *kəranūši*, which appears in Y 10.13 instead of the expected *\*kəraṇaoši*, Hoffmann & Forssman 2004, 215 propose to emend *\*kəranūše* (2sg.ind.pres.mid.), while de Vaan 2003, 306 accepts a proposal by Lubotsky, according to which the form *kəranūši* is a corrupt form for *\*kəranūīdi* (2sg.ipt.pres.act.).
- karapan-* After critically examining various etymologies, Jamison 2009 [2013] connects the Av. priestly title with two isolated Ved. forms, RV 10.99.9 *kṛpāṇe* and 10.22.10 *kārpāṇé* with no underlying root attested.
- karšiptar-* Redard 2012, 195–196 surveys etymologies proposed for the name of this bird. Accepting Gershevitch’s explanation as ‘black-winged’, she adduces further mythological evidence suggesting that the name designates the raven.
- kauui-* Jamison 2007a, 162 surveys the hysterokinetic inflectional pattern of this stem, while Jamison 2007, 120–123, 137 discusses the scholarly debate on the semantic discrepancies between Av. *kauui-* and its Ved. counterpart *kaví-*, and endorses the traditional association of YAv. *kauui-* with royal power. Pointing out the divided

usage in the Gāthās, where four of the attestations are in very negative contexts, while in two others *kauui-* appears in the name of Zarathustra's patron Kauui Vištāspa, she notes that the word *xšaθra-* 'rule' occurs in half of the Gāthic attestations of *kauui-*, a fact which she interprets as indicating an association of *kauui-* with royal power and its exercise. She concludes that in Indo-Iranian the *\*kaui-* was the 'word-master' close to the ruler, and that in Iranian his designation came to be interpreted as a royal title.

*kāšaiia-* Tucker 2004, 554 suggests that the present stem with lengthened root vocalism was created on the basis of the noun with full-grade root vocalism *kaša-* 'arm-pit' (Ved. *kākṣa-*), denoting a place of concealment. The verb would mean 'to conceal, keep hidden' in its two Av. attestations in Vd 18.4.

*kqsaouiia-* Remmer 2006, 57–58 and 2012 analyses the name of the Lake *kqsaouiia-* as *\*kam-sau(i)ia-* 'how swelling!', a compound consisting of the interrogative particle *kam* and *souiia-* from the root *sū* 'to swell'; cf. also below s.vv. *saošiant-* and *spənta-*.

*kərəma-* Panaino 2005 argues that the expression *stārō kərəmā*, which in the entire Av. corpus occurs only once in Yt 8.8, represents a possessive compound *stārō.kərəma-* 'belonging to worm-stars'. The second term *kərəma-* would be formed with suffix *-a-* *possessivum* replacing the *-i-* of the simplex *\*kərəmi-* 'worm' (Ved. *kṛmi-*).

*mad* Hintze 2000a finds evidence for the root *mad* 'to measure' not only in the expression *vīmāδasciṭ vīmāδaiia-* in Vd 7.38 and 40, but also in the OAv. form *ma-satā* (Y 54.1) and in *vohu-maiḍe* (Y 12.1, Vd 19.11).

*maga-* According to Gershevitch 1996, 60–68, *maga-* denotes the 'Vow' of acceptance of Ahura Mazda's revelation to Zarathustra. Schmidt 1991 surveys the Gāthic attestations and reaffirms the etymological connection of Av. *maga-*, which he renders as 'bounty, gift', with Ved. *maghá-*. Assuming a semantic development by way of metonymy (*pars pro toto*) of 'gift' → 'situation in which gifts are exchanged', Hintze 2000, 45–50, 264f. fn. 66 and 2004a, 30–35, 43 argues that Av. *maga-* is a technical term for the ritually enacted exchange of gifts which circulate between three agents: the patron, the priest and the god(s). By contrast, Skjærvø 2008, 498–503, while likewise positing the meaning of *maga-* as 'gift-exchange', postulates a bipolar structure, in which the poet-sacrificer and the god(s) exchange gifts and counter-gifts. Janda 2014, 228–238 argues for the etymological connection between Indo-Iranian *\*maghá-* and Grk μάχη, the original meaning of which he posits as 'contest' (a collective < *\*mágh<sup>h</sup>-eh<sub>2</sub>*), and derives these words from IE *\*magh<sup>h</sup>-ó-* 'prize at stake'. Dieu 2015, 211–212 critically evaluates this proposal. Jamison 2007, 135f. notes the linkage of *maga-* and *kauui-* in the Gāthās and sug-



gests that it points to the figure of Indra, who is called both *kavi-* and *maghávan-* in the RV.

*mayauua-* Panaino 2016 examines the expression *mayauuō frauuaxšōiŋ* in the context of Vd 4.47. He concludes that the words are either the fragment of a longer sentence or an interpolation, whilst representing one of the *cruces desperationis* of Avestan philology.

*magauuan-* According to Meissner 1993, Ved. *maghávan-* and its Av. cognate *magauuan-* (only OAv.) are remodelled from an Indo-Iranian agent noun *\*mag<sup>h</sup>a-<sub>uán</sub>* ‘winning/giving the gift’, although Scarlata 1999, 466–467 cautions that the earlier analysis of an adjective formed with suffix Indo-Iranian *\*-<sub>uan</sub>*- and meaning ‘provided with gifts, generous’ still remains a possibility.

*mainiiuuasah-* Forssman 1995 reads *mañiiuuasah-* and identifies an otherwise unattested *s*-stem *\*asah-* ‘swiftness’ in the second term of this compound, which he translates literally as ‘having the swiftness of thinking’ (“Schnelligkeit des Geistes (Denkens) habend”). Kellens & Pirart 1997, 65f. fn. 63 point out that differently from the Av. compound, the first term is *manah-* in the Ved. cognates *mano-jū-*, *māno-java-* and *māno-javas-* ‘as swift as thought’, which Forssman (p. 29) adduces as parallels. Panaino 2012, 177f. translates the Av. compound as ‘swift like the (willing) thought’.

*mainiiu-* Kellens & Pirart 1997, 65 fn. 63 see the semantic difference between *mainiiu-* and *manah-* in that the former denotes the ‘thinking thought’ (“pensée pensante”) and the latter the ‘content of thought’ (“contenue de la pensée”), while Panaino 2012, 171–173, 178 fn. 55, building on Malamoud’s definition of the Ved. cognate *manyú-* as a permanent, essential mental faculty, proposes that *mainiiu-* refers to a ‘willing (or deliberate) thought’, *manah-* to the product of a mental vision or representation.

*mainiiu.tāšta-* Panaino 2012 argues that as the first term of compounds, *mainiiu-* denotes the instrument, rather than the agent in *mainiiu.tāšta-* ‘made/carved (etc.) [together (*ham*)] by means of a mental act (or will)’, rather than ‘by a spirit/Spirit’, and of *mainiiu.stāta-* (Yt 13.2) ‘mentally established’ or ‘established by (means of) active thought’.

*man* Steer 2015, 221f. surveys the various IE roots *\*men*, *\*menH*, *\*mneH*. Following a suggestion by Zehnder in Rix, H. *et al.* 2001, 447 n.1, he argues on the basis of Anatolian evidence that the primary meaning of *\*men* ‘to think’ and *\*mneH* ‘to think of’ was ‘to see’.

*mazdā-* The fem *ā*-stem *mazdā-* ‘wisdom’, which occurs as a hapax legomenon in Y 40.1, corresponds to Ved. *medhā-* and represents a suffixed *ā*-stem (PIE *\*m<sub>ys</sub>-d<sup>h</sup>h<sub>1</sub>-éh<sub>2</sub>-*) according to Kellens & Pirart 1988–1991 II 285; Scarlata 1999, 257;

- Hintze 2007, 285 and 2014a, 228. Dōyama 2013 studies the morphology of the Indo-Iranian collocation *\*mans d<sup>h</sup>ā*.
- mazdaδāta-* Panaino 1992 argues that the distribution of *mazdaδāta-* and *ahuraδāta-* in the Avesta is governed by metrical rather than ideological principles. Panaino 1992, 199f. and 1992 [1994] examines the only attestation at which *mazdaδāta-* is thought to characterise *vərəθrayna-* (thus e.g. Bartholomae 1904, 1159). Interpreting the passage in question (*nizbaitiemi vərəθraynəm ahuraδātəm barō.x<sup>v</sup>arənō mazdaδātəm* Vd 19.37) in the light of Yt 14.2, he argues that the adj. in fact describes *x<sup>v</sup>arənah-*, cf. above, s.v. *barō.x<sup>v</sup>arənah-*.
- maqaiiən* De Vaan 2009, 45 endorses Humbach's analysis of this form as an adverbial acc.sg.ntr. of a pres.part.act. *\*mānaiant-* 'resembling'.
- mərəzu-* After reviewing previous interpretations of *mərəzu-*, Panaino 1995–6 suggests that the noun denotes the 'peg, vertebra' located between Ursa minor and Ursa maior (cf. above, s.v. *hapta.srū-*).
- mīšti* Pirart 1997a: 157 and fn. 73 translates this form, which is attested in Yt 5.120 and 7.4 (= Ny 3.6) as 'sans cesse'. Nikolaev 2012, 567f. and fn. 9–10 surveys various interpretations.
- mušti-* Janda 1998, 14–16 examines this noun, which is attested as the first term of the compound *mušti.masah-* 'having the size of a fist', in its IE context and analyses it as a *ti*-abstract of the root IE *\*mus* 'to close'.
- mūθra-* While the meaning of the Ved. cognate *mūtra-* is 'urine', Tichy 1997, 95–97 argues that Av. *mūθra-* denotes 'faeces' in a liquid form.
- naotara-* Oettinger 2012, 213f. derives the Av. name of the clan *naotara-* as an internal derivative of PIIr. *\*nutára-* < *\*nu-téro-* 'quick' and connects it with Luwian *nanuntarija-* 'present, swift'.
- napāt-* Vijūnas 2009, 6f. considers Av. *napāt-* 'grandson' to be the reflex of an IE primary derivative *t*-stem with an amphikinetic inflectional paradigm with nom.sg. YAv. *napā* < *\*nép-ōt-s* and gen.sg. YAv. *naptō* < *\*nep-t-ós*.
- nas* Kellens 1984, 368f. n.14 and 1995, 40–41 posits two homonymous roots, *nas* 'to perish' and *nas* 'to reach'. By contrast, García-Ramón 1999, 60–62, like Hoffmann & Forssman 2004, 311, posits three roots *nas*, which are homonymous in Av., but have different etymological origins. In addition to *nas* 'to perish' (IE *\*nek*), he distinguishes IE *\*h<sub>2</sub>nek* 'to reach', continued in the Av. pres. *ašnaui-*, and *\*h<sub>1</sub>nek* 'to take' in the *s*-aor. *nāš-*, which forms a suppletive aorist alongside present forms from the root *bar* 'to carry'.
- nasišta-* Tucker 2009, 522 suggests that this superlative means 'best at reaching, best at attacking', and is based on the root aorist subjunctive stem *\*nasa-* (Ved. *naśa-*) of the OIr. root *nas* (< *\*Hnek*) 'to reach', which in Ved. is frequently employed

for reaching in a hostile sense, rather than the homonymous *nas-* (< \**nek̐*) ‘to perish’. Goldman 2015, 136 endorses this explanation.

*nāuuīia-* Panaino 1990, 115f. (with references) and 2004a endorses Gnoli’s suggestion that *nāuuīia-* refers to ‘channelled waters’ in Vd 14.16 and 18.74, where the Pahlavi translation *āb ī nāwdāg* is glossed as *kahas ī ābdān pad dān*. He supports this argument with reference to the terms for ‘pipe’ and ‘tube’ in Germanic languages. Widmer 2007 objects to Bartholomae’s 1904, 1064f. meaning ‘navigable’ (“schiffbar”), which is widely accepted, on the grounds that neither Ved. nor Av. attestations refer to a river’s navigability. Rather than being a secondary derivative from the nominal stem \**nāy-* ‘ship, boat’, Widmer suggests that Indo-Iranian \**nāyīa-* is a primary derivative from the verbal root Indo-Iranian \**nāy-* ‘to flow’ and means ‘streaming, raging’. Along similar lines, but without reference to Widmer, Skjærvø 2011, 326 and fn.3 suggests the meaning ‘in spate’ and adduces Sogd. *n’ywk* ‘deep’. The meaning of Pahl. *nāwdāg*, an epithet of rivers (*rōd*) and water (*āb*), is accordingly ‘raging’ rather than ‘navigable’, as usually assumed (MacKenzie 1971, 58 s.v. \**nāydāg*). Filippone 2017 summarises the various interpretations of Av. *nāuuīia-* and/or Pahl. <*n’ywt’k*> as follows: (1) ‘navigable’, (2) ‘channelled, flowing in channel’, (3) ‘deep’, (4) ‘tumultuous’, (5) ‘unfordable’, (6) ‘in spate, flooding’, and (7) ‘streaming, raging’ (p. 100 with references). Examining the textual and lexical documentation of PIr. \**nāy-*, she concludes that similar to the English word: *trough*, the semantic range of the Iranian outcomes of PIr. \**nāy-* could have been equally as wide.

*nqmīšta-* Hintze 2007, 138 fn. 78 attributes the long root vowel of the superlative of *nam* ‘to attribute’ to the influence of forms of the homonymous root *nam* ‘to bend’, where, in addition to the adj. *namra-* ‘bending’, long root vocalism is attested in the Caland *i*-stem constituting the first term of the compound *nqmīi-qsu-* ‘with pliant stem’.

*nid* Tremblay 1999 argues that the 3sg. form *nāist* is the inj. of the root present (Indo-Iranian \**nāidʰt*) of the verb *nid* ‘to blame, revile’, see Hintze 2014, 33.

*nīuāiti-* De Vaan 2012, 39–40 argues that in both of its attestations in Y 10.16 and N 66 (= 84), the noun means ‘separation’, a specialised semantic development of *nī-uuan-* ‘to spread out’ from the root *van* ‘to win, conquer’; cf. below s.v. *van*.

*niuuāēdaiia-* Swennen 2015 examines the liturgical function of Indo-Iranian \**niyāīdaiia-*.

*pairikā-* is analysed by Janda 2006 [2008], 213–219 as ‘surrounder’ < PIE \**peri-h<sub>3</sub>k<sup>w</sup>e-h<sub>2</sub>* and interpreted as referring to the magic bonds by which the sorceress controls her victim. Schwartz 2008 [2012], 98–100, who also discusses alternative explanations, accepts this etymology and explores in Iranian mythological thought

the ways in which the ‘surrounding’ horrid female became the one who ruins fertility.

*parəndi-* Pinault 2016 reviews the scholarly debate about this Indo-Iranian noun (Ved. *púraṃdhi-*). He analyses it as a compound with a governing verbal root noun in the zero grade as first term: *\*pṛ̥-Hand<sup>hi</sup>-* ‘carrying the flourishing across’, ‘promoter of flourishing, or thriving’, and deified ‘Thriving’.

*pauruuaniia-* Janda 1997, 36–39 interprets the hapax legomenon Yt 9.26 *pauruuānīm*, an epithet of the ‘girdle’ (*aiβiiāṇhana-*), as ‘stony’ and derives it with suffix *-ia-* from the IE heteroclitlic stem *\*paruar-/paruan-* ‘stone’, which he also finds in YAv. *pauruuānca*, see above s.v. *druca pauruuānca*. However, he also allows for the possibility of a derivation of *pauruuaniia-* from the homonymous, and possibly etymologically identical *\*paruar-/paruan-* ‘knot’, as proposed by Geldner 1877, 140.

*pāiriuuāza-* Janda 2006a, 105 connects the second term of this epithet of the wild boar (Yt 14.15, 10.127) with IE *\*h<sub>2</sub>ueǵ* ‘to be vigorous, awake’ and interprets the compound as a Bahuvrīhi ‘having superior power’ (‘überlegene Kraft habend’), with lengthening of the first syllable (*\*pāiri*).

*pərət-* f. ‘battle’. Vijūnas 2009, 121–123 discusses the etymology and morphological history this noun. He suggests that it is a derivative with suffix *\*-t-* from the root *\*per* ‘to beat’ and represents an original action noun ‘beating, thrashing’.

*pərətu-* Discussing the inflection of *pərətu-* ‘passage’, which is derived with suffix *-tu-* from the root *\*per* ‘to cross’, Tremblay 1998, 201–203 argues that the noun followed a holokinetic inflectional pattern with nom. *\*pér-tu-s*, gen. *\*per-tu-és*.

*pišīia-* de Vaan 2000a connects the Av. forms of this verbal stem with Ved. *pec* ‘to press’ and argues that the Av. verb denotes rejected ritual practices.

*pouru.zaoθra-* Rejecting the assumption of an exception to the rule for *u*-mutation of *\*a*, de Vaan 1997 [2000] discusses Yt 10.113 and emends the transmitted *gouru.zaoθranqm* to *pouru.zaoθranqm* ‘with many libations’.

*pusa-* Panaino 1995–6, 200 recognises in the form *pusāṇhō* in Vd 19.42 the Av. cognate of Ved. *púccha-* ‘tail’ (on the latter see Mayrhofer 1992–2001 II 140 with references). De Vaan’s 2003, 287 fn. 313 preference for reviving Hertel’s explanation of *pusāṇhō* as a MP intrusion is critically reviewed by Cantera 2006a, 238.

*rašnu-* In connection with a discussion of Av. *rašnu-*, Schwartz 2010a, 102 proposes a rule according to which Indo-Iranian *\*-žn-* became Av. *-zn-* ordinarily, but *-šn-* when *r* preceded. Goldman 2015, 24–26 argues that in the Avesta *rašnu-* only occurs as a masculine substantive in the singular and denotes the divinity ‘Justice’.

*ratu-* According to Kellens 1996, 103–104 and 2006, 9–10, Av. *ratu-*, which corresponds etymologically to Ved. *ṛtú-*, has four different applications. In the first two, which are inherited, Av. *ratu-* denotes a recurring period of time or biological

function (e.g. in Y 1.3–9), and a divine pronouncement defining a rule in agreement with *aša-* (e.g. in Y 1.10–18). From these two meanings developed the third and fourth applications in which the word denotes, respectively, the prototype of the living species, and a divine title of Ahura Mazdā and *yazata*-s such as Mithra, whose function is connected with recurring periods of time. The different meanings and usages proposed for Av. *ratu-* are also discussed by Raffaelli 2014, 8 and fn.27–28, p. 182, and by Tremblay 1998, 192–196, who identifies ‘point in time’ (“moment”) and ‘rule, model’ (“règle, modèle”) as the most ancient meanings (pp. 195, 196). According to Skjærvø 2006 [2007], 72; 2012, 65; 2013, 105, *ratu-* denotes the ‘models’, ‘blueprint’ or ‘prototypes’ in the spiritual world of Ahura Mazdā’s world of living beings, which they also protect. Ahmadi 2012, 535–537, who favours the derivation of *ratu-* from the root *ar* ‘to fit, join’ (IE *\*h<sub>2</sub>er*), discusses the use of *ratu-* in the Gāthās and suggests the translation ‘measure’.

Excluding the possibility of an analogical or phonetic replacement of *\*ar-* by *\*ra-*, Tremblay derives *ratu-* from *\*h<sub>2</sub>retu-*, and postulates a derivative in *\*et-u-* from the root *\*h<sub>2</sub>er* ‘to fit’. The same root would also have produced a noun formed with suffix *\*-tu-*, continued, for example, in Grk ἀπτός · σύνταξις (Hsch.), Lat. *artus* (p. 201). Rejecting Tremblay’s proposal, Widmer 2004, 58 and fn.68 suggests that Av. *ratu-* incorporates forms and meanings of three etymologically distinct nouns. One is *\*artu-/rtu-* (Ved. *ṛtú-*) ‘time, moment’ < *\*h<sub>2</sub>er-tu-/h<sub>2</sub>r-tu-* (from IE *\*h<sub>2</sub>er* ‘to fit’); another is *ratu-* < *\*reh<sub>1</sub>-tu-* from the root *rā* ‘to grant’. Here the laryngeal would have been lost in the stem allomorph *\*reh<sub>1</sub>-tū-* (Av. *ra<sub>9</sub>β-*) according to the “Wetter”-rule. Widmer adduces Ved. *rātna-* ‘gift’ < *\*reh<sub>1</sub>tne/o-* as a parallel for such a loss of the laryngeal. The third noun would be IE *\*lē(H)t-o-* ‘warm season, day, summer’, which is preserved in Slavic and Celtic languages and, as a loan-word, in Finno-Ugrian.

*rāna-* According to Skjærvø 2005b, 76–77; 2013a, 125 *rāna-* means ‘thigh’ and refers to the strong legs which a charioteer needs in order not be thrown off the chariot during the race. Humbach 2017 argues in favour of the translation of this noun as ‘balance’.

*san* Tremblay 1996a discusses the morphological identity of the YAv. form *sanat* of the root *san* ‘to rise’ in relation to its *nu*-present *asənaoiti*. He concludes that historically *sana-* represents the stem of the root aor.subj., but synchronically it functions as a thematic present, which forms the basis of several forms in Middle and New Iranian languages.

*sayhauuācī-* Remmer 2006, 214–225 analyses this female personal name as ‘pronouncing the teaching’ (“die Verkündigung aussprechend”), see no. 65 above: Onomastics, p. 30.

- saṇ'hant-* Sims-Williams 2016 connects Av. *saṇ'hant-*, a cognate of Ved. *śásvant-* ‘forming a continuous series, numerous, frequent, all together, each’, with Sogd. *s't* ‘all, whole, entire’, an adj. so far without etymology. Deriving the former from PIr. *\*sah-uant-* and the latter from *\*sah-ant-*, he identifies a precise parallel to the relationship between pairs such as *\*jaH-uant-* and *\*jaH-ant-* or *\*čiH-uant-* and *\*čiH-ant-*.
- saošiiant-* Skjærvø 2011a, 61 fn. 25; 2008, 496 fn. 13, who translates the term as ‘Revitalizer’, maintains that the future participle has the transitive meaning ‘he who will make (the world) swell’ and is an epithet of the successful sacrificer. Referring to the noun’s etymological connection with *sauua-*, Schwartz 2014, 28 interprets *saošiiant-* as ‘bringer of evil-expelling weal’ and translates ‘weal-bringer’. In a discussion of the semantic development of the term *saošiiant-* in the Gāthās and in YAv., Hintze 1995, 78 emphasises the intransitive meaning of the root *sū* ‘to swell’ established by Kellens 1974a, and interprets the term as ‘he who will be strong’ in the sense that he will be stronger than Evil. Hintze 1999a argues that the YAv. myth of the ‘victorious’ *saošiiant-* incorporates elements of the dragon-killer topos of the heroic epic tradition, while Kellens 2007a, 120–121 and 2013, 77–78 further refines and corroborates his argument that *saošiiant-* is a title of the officiating priests. Cf. also above s.v. *kqsaoiia-* and below s.v. *spənta-*.
- sauua-* Schwartz 2014, 28 describes the meaning of this noun as referring to the defeat of Wrong by Right and translates it as ‘beneficial weal’.
- siyūiriia-* Endorsing Bartholomae’s 1904, 1580 connection of Av. *siyūiriia-* in the compound *siyūire.ciθra-* with the Ved. name of a tribe and of a plant *śigru-*, Cantera 1999, 45 argues that the YAv. loss of *-γ-* before *-u-* is chronologically later than the YAv. development of *-rui-* > *-uri-*. Lubotsky 2012, 103 suggests that Ved. *śigru-* ‘Moringa pterygo-sperma’ might be an Iranian (Scythian) loan word.
- siiazd* Lubotsky 2004 examines Av. attestations of the root *siiazd* ‘to withdraw, flinch’ and argues in favour of the etymological connection with Ved. *sedh* and Latin *cēdere* ‘to flinch’.
- spaiiaθra-* Schwartz 2014, 23 translates the hapax legomenon in Y 30.10 *spaiiaθra-* as ‘attachment of the chariot’s shaft (pole) to the yoke’. He supports his translation with reference to the cognate root stem *-spā-t-* in YAv. *upairi.spāt-* ‘chariot pole’ and, with preverbs *\*ā-*, *\*vi-*, and *\*ava-*, in Sanglechi, Yidgha, and Wakhi words for the functionally equivalent ‘plow-shaft’.
- spāda-* Deriving this noun from *\*spode/o-* of an IE root *\*sped* ‘to be forceful’, Weiss 1991–1993 connects it with OCS *spodŭ*, which denotes a company of people sitting together at a meal, and with the Oscan name Σπεδῖς.
- spānauuant-* Following Humbach 1959 II 93 and interpreting the *-a-* after *-n-* as anaptyctic, Andrés-Toledo 2013, 14–15 analyses the form *spānauuaiti*, an attribute of

- daēnā-* in Vd 19.30, as the nom.sg.fem. of *spānuuant-* ‘prospering’, rather than as ‘having two dogs’ (Bartholomae 1904, 1617).
- spānta-* Skjærvø 2002, 32 fn.11 and 2011a, 61 fn.25 points out that the root *spā* and its variants *sū-*, *sauu* (Indo-Iranian *\*ćuaH*, *\*ćuH*, *\*ćauH*), from which *spānta-*, *sūra-*, *sauuah-* and other words are derived, literally means ‘to swell’, and in religious context refers to nature swelling with (the juices of) life. He proposes the translation ‘(re)vitalizing, life-giving’ for words containing this root. Accepting this definition of the meaning of the root *spā* and its variants, Hintze 2014a, 243–244 suggests that the expression *amāša- spānta-* collectively refers to the spiritual creation, and that the attribute *spānta-* ‘life-giving’, specifically denotes the idea that the spiritual creation is perceived as giving rise to the material world.
- spāntō.tāma-*, *spāništa-* Panaino 2007 examines the use of the two superlatives in the Avesta with special attention to the relationship between Ahura Mazdā and Spānta Mainiiu.
- spitāma-* Schmitt 2003, 367 and fn. 24 suggests that the form *spitāmahe-* in Yt 13.98 is the “singulative” of the plural name of the clan.
- sraoša-* Tremblay *apud* Swennen 2016, 61 suggests that the Av. stem *sraoša-* is based on the sacrificial call *\*sraošaṭ* ‘let him hear!’’, the postulated Iranian counterpart of the Ved. sacrificial expression *śrauṣaṭ*.
- staota- yesniia-* Studying the canonization of the Avestan liturgical texts, Rezanian 2010a argues that the expression *staota- yesniia-* denotes a liturgical genre rather than a specific liturgy. According to him, the general structure of the liturgical genre is outlined in Vr 1.3–9 (repeated with minor variations in Vr 2.5–11), while Y 27–59 are one particular version which became part of the canon.
- stij-* Lubotsky 2008 argues that the form and meaning of the IIr root are *\*(s)tig* ‘to penetrate’ (Rix *et al.* 2001, 592f.), rather than *\*stigh* ‘to step’ (Rix *et al.* 2001, 593) and that the root *stig* is a variant with an *s*-mobile of Ved. *tig* ‘to sharpen’, whose Iranian cognates are only found in nominal derivatives (*tiṣra-* ‘pointed’ etc.). His proposal to translate *stija* in Yt 10.71 as ‘with the point / tip (of the tusks)’ agrees with that of J. Schindler, *Die Sprache* 25, 1979, 58, not quoted by Lubotsky, who posits a noun *stij-* ‘Hauer’ or ‘Stich, Durchbohrung’ from the root *\*steig* ‘spitzen, stechen’. Lubotsky emends Yt 10.71 *stija* to *\*stiji* following Kellens 1974, 85.
- strī-* Dunkel 2016 discusses the etymology of PIIr. *\*strī-* ‘woman’, which he derives by haplology from Early PIIr. *\*sriH-triH-*. He analyses the latter as a derivative of PIE *\*sór-* ‘female, woman’ via an intermediate *\*sr-ih₂-* by means of hypercharacterization followed by haplology.
- stuiiē* Jasanoff 2016, 140 interprets the YAv. 1sg. *°stuiiē* ‘I hereby (fore)swear’, as an archaic form which retains the performative function of the Indo-Iranian 1sg.

- \*stuy-aij*. The latter represents an Indo-Iranian zero-grade middle root present whose paradigm in the singular was 1sg. *\*stuyái*, 2sg. *\*stušái*, 3sg. *\*stuyái*. Jasanoff suggests that in Ved. *\*stuyái* was replaced by the enigmatic 1sg. *stuṣé* ‘I shall praise’.
- stūirīm* Buyaner 2014 interprets this *hapax legomenon*, which is absent from Bartholomae’s 1904 dictionary, as the acc.sg. of an Indo-Iranian stem *\*stuyā-*. The latter would be derived with suffix *\*-yā-* from a nominal stem *\*star-*.
- sub* Sims-Williams 2001 argues that the Ir. root *sub* ‘to bore, pierce’ (Ved. *śubh*), which Bailey 1943, 221 had identified in Av. *suβrā-*, *sufṛā-* from *\*sub-rā-* ‘goad’, is also present in the verb *aiβi-suua-* (< *\*suβa-* < *\*suba-*) in Vd 2.10, where it was corrupted to *aiβi-šuuā-* under the influence of *fracā.šuuā-* a few words further on.
- tanū-* Pinault 2001, 181 derives Av. *tanū-*, Ved. *tanú-* from a hysterocinetic IE noun *\*tḡh₂-ú-h₂-*, as opposed to the proterocinetic adj. *\*ténh₂-u-/tḡh₂-éu-* ‘stretched’ in Ved. *tanú-*, from the root *tan* ‘to stretch’.
- tanu.mąθra-* Grenet 2006 [2010], 96 and *apud* de La Vaissière & Riboud 2003, 134–135 recognises an illustration of the compound *tanu.mąθra-* ‘whose body is the sacred formula’ in a Sogdian painting from Penjikent, see also Hintze 2014, 6. Skjærvø, by contrast, interprets the first part of the compound as belonging to the root *tan* ‘to stretch’ and translates *tanu.mąθra-* as ‘spinning the poetic thought’ (e.g. in Yt 5.91, Skjærvø 2011b, 62).
- tanu.pərəθa-* Skalmowski 1991 studies this compound.
- taraδāt-* Hintze 1994, 101–102 and Vijūnas 2009, 109–115 and 129 discuss the formation and semantics of the adj. *taraδāt-* ‘overcoming’, a *t*-stem compound, whose athematic inflection is secured by the gen. *taraδātō* (Y 22.24 etc.). Vijūnas reconstructs the compound’s second term as a derivative athematic *t*-stem with full grade root *\*-dʰeh₁-t-*, formed with the suffix *\*-ot-/t-*.
- tāiiu-* See above s.v. *hazaŋhan-*.
- taθra-* Kümmel 2012 [2013] derives Av. *taθra-* ‘darkness’ from PIr. *\*taNsra-* and postulates the sound change of tautosyllabic *\*sr* > *\*θr*.
- θbars* Hill 2007, 272–277 surveys the attestations of *θbars* ‘to cut’ and defines the functions of its different present and aorist stems.
- θbaršta-* According to Lubotsky 1998a, 74–78 *θbaršta-zruuan-* means ‘allotted lifetime’. Differently, Kellens 2000, 128–131 reads the attestations in Yt 8.11, Yt 10.55 and 74, as *upa aθbarštahe jaymiiqm* in agreement with the ms. F1. Translating the expression as ‘je serais venu ... pour (toute la durée du temps) non façonné’, he establishes an opposition in Av. between limited and unlimited time, or, in his words, “temps fabriqué (*θbaršta-*) du monde des hommes, qui est celui du mélange” and “temps non fabriqué (*aθbaršta-*) du séjour des dieux, qui peut être défini comme *akarana-* ‘sans bords’”. Panaino 2003, 196–198 endorses the opposi-



- tion between *θbaršta-* and *aθbaršta-* noted by Kellens in these passages. By contrast, de Vaan 2005a, 700 and fn.1 considers the reading *aθbarštahe* in F1 in the above passages to be corrupt, and prefers the reading *θbarštahe*.
- θβōrəštar-* Assuming with Beekes 1988, 94 that *ō* stands for *ə*, Lubotsky 1994 argues that *θβōrəštar-* represents *\*θβərəštar-* and, together with its Ved. cognate *tváṣtar-*, goes back to an Indo-Iranian zero grade formation *\*tūrć-tar-*. According to him, the Indo-Iranian root *\*tūrć* is attested only in zero grade formations. While de Vaan 2003, 508 accepts this analysis, Tichy 1995, 34 and fn.17 reconstructs a full grade form *\*tūrāš-tar-*.
- θraētaona-* Jackson & Oettinger 2002, 222 argue that the form without a diphthong in the second syllable is the one which is better transmitted and represents Plr. *\*θrajtana-*, which corresponds to Ved. *traitaná-*. On the basis of the story of the sailor Pāuruua related in Yt 5.61f. and of Ved. passages, esp. RV 1.158.5, they reconstruct the Indo-Iranian story of a pious man who is rescued by a hero named *\*Traitana/\*Trāitana*.
- θraoštā* Cantera 1994–5 interprets the form *θraoštā* in Y 34.3, 46.7 and Vr 12.4 as the nom.sg. of an agent noun *θraoštār-* ‘nourisher’ (‘Gedeiher’) of the root *θruš*.
- upairi. kairiia-* Mehendale 2010 suggests connecting this compound, which is attested in Yt 13.31, with the root *car* ‘to move around’, rather than *kar* ‘to do’ as proposed by Bartholomae 1904, 395. According to Mehendale, the meaning of the compound is ‘one whose movement is above, who moves in the air’.
- upā.vāuuō* In H 2.7 and 25, Tremblay 1997a, 123 and fn.2 emends *\*upā.vāuuā* ‘having blown’ (‘ayant soufflé’). Interpreting the form as the nom.sg. of the perf.part.act. of the root *vā* ‘to blow’, he reconstructs it as PIE *\*upo-h₂ue-h₂uh₁-ūōs*. By contrast, Hintze 2017, 170 fn. 13 accepts the emendation *\*upa.vāiiō* proposed by Kellens 1984, 137, 337f. (followed by Piras 2000, 88), but points out that, while the correction of *-uu-* to *-ii-* is unexceptionable, *vā* ‘to blow’ normally forms a root present. She therefore assumes the crossing of *vā* ‘to blow’ with the present stem of the homonymous root *vā* ‘to go out, extinguish’. The latter forms a pres. stem *vāya-* in Ved., but also shows crossing with the pres. stem of *vā* ‘to blow’ (e.g. Ved. pres. part. *udvānt-* ‘extinguishing’).
- urupi-* Deriving *urupi-* by metathesis from *\*(H)ulpi-*, de Vaan 2000, 280–284, 289f. endorses Hoffmann’s connection of *urupi-* with Lat. *volpēs*, but with the difference that de Vaan posits a normal *i*-stem inflection, with nom.sg. *urupiš*, and gen.sg. *\*urupoiš*. According to him, *urupi-* denotes a small animal such as ‘marten’, ‘mink’ or ‘ermine’ and is to be distinguished from the *i*-stem *raopi-* (Vd 13.16) ‘fox’, which, together with Indo-Aryan *\*lopi-*, attested in Dardic dialects, goes back to Indo-Iranian *\*Hraupi-* ‘fox’.

*uruuaj* Tremblay apud Swennen 2016, 69, suggests that two Gāthic attestations (Y 32.12 and 44.8) make direct reference to the ‘*cri rituel*’ by which the soul of the sacrificial animal is dispatched to the gods. Translating the form *uruuāxš*, which he parses as the 3sg. inj. sigmatic aorist of the root *uruuaj* ‘to proceed’, as ‘qu’il avance’, he suggests that it refers to the action of ‘taking to the road’ or ‘starting the journey’.

*uruuānē* While rejecting Insler’s interpretation of this hapax legomenon in Y 31.2 as the dat. sg. of *uruuan-* ‘soul’, Kellens & Pirart II 60, 312 leave the form in the dark. In agreement with Bartholomae 1904, 1544, Lubotsky 1997a, 146–147 connects it as an infinitive with the verb *var* ‘to choose’. Reconstructing the pre-forms as *\*ruyānāi* < *\*urHyānāi*, he sees a related formation in Ved. *urvārī-* ‘lady of choice, wife’. Cantera 2001, 10 adduces a Ved. phraseological parallel in support of the connection of *uruuānē* with *var* ‘to choose’. By contrast, García-Ramón 2009a, 244 accepts the explanation, first published by Humbach in *MSS* 11, 1957, 77, according to which the form represents an infinitive *\*əuruuānē* < *\*ər-yānāi*, from the root *ar*, whose meaning Humbach posits as ‘to move’. Humbach 1991 II 59 specifies the meaning of the root as ‘to move towards, to reach, attain to’, thus indicating that the verb he has in mind is IE *\*h<sub>1</sub>er* ‘to reach, arrive’ rather than *\*h<sub>3</sub>er* ‘to set (oneself) in motion’ as proposed by Hoffmann & Forssman 1996, 241. Humbach & Faiss 2010, 172 suggest that the unexpected *-ā-* in *uruuāne* may be influenced by *uruuātā* in Y 31.1.

*uruui-* According to Lubotsky 1997a, 146 *uruui-* in *uruiiāpa-* (an epithet of lakes), corresponds to Ved. *urvī-* ‘broad’, cf. Cantera 2001, 10. By contrast, Janda 2006a, 109 analyses *uruui-* as the Caland form (< *\*ruHi-* ‘spacious’) of *rauua-* ‘space’.

*usan-* For references on the relationship between the stems *usan-* and *usaḍan-*, which continues to be subject to debate, see Jamison 2007, 125 fn.8. Jamison 2007a discusses the morphology of Av. *kauui-* *usan-*, *usaḍan-* and its cognate Ved. *uśanā kāvya*.

*usca* Steer 2015, 224 fn.94 interprets Av. *usca*, Ved. *uccā* ‘above, from above, upwards’ as representing the adverbial instr.sg. of the thematic stem *\*ud(s)-h<sub>3</sub>k<sup>w</sup>-é/ó-*. He reviews two possible explanations for Av. *us-*. According to the first, which is implied by Schmitt 1968, 140, *us* represents the generalised sandhi form that originated when the local preverb *\*ud* ‘up(wards)’ was followed immediately by a dental (e.g. Av. *ustāna-* ‘stretched up’ < *\*ud-tāna-*). According to the second explanation, adopted by Hoffmann & Forssman 2004, 98, *us* goes back to an extended local adverb *\*ud-s*, instead of simple *\*ud*.

*uśahina-* Hintze 2007b argues that the internal structure of the five Gāhs indicates that they were composed with *uśahina-* intended as Gāh 1.

- uzēmōhī* Hintze 2007, 134f. fn.67 discusses earlier proposals and suggests to emend *uzēmōhī* (Y 46.9) to <sup>+</sup>*uzēmōhū*, the loc.pl. of a stem in *-man-* denoting the circumstances of an event or action, like, for example, the loc.sg. *yāhī* ‘in the appeal (-ceremony)’ in Y 46.14 and 49.9.
- <sup>+</sup>*vaδəm* Following a proposal by Schindler *apud* Watkins 1987, 275, Watkins 1995, 319 explains the transmitted form *vaēδəm* in Yt 19.92 as being due to anticipation of the following *vaējō*, and emends *vaēδəm* to <sup>+</sup>*vaδəm*, the acc.sg. of the Av. stem *vaδa-* corresponding to Ved. *vadhá-* ‘weapon’.
- vaδre.yaona-* Surveying earlier interpretations of this compound in Yt 5.87, Oettinger 2016 suggests emending <sup>+</sup>*vaδri.yaonā* ‘with barren womb’ and connects the first term of the compound with Ved. *vádhrī-* ‘castrated, barren’.
- vaēduuōišta* Humbach 2014, 6–7 retrieves an OIr. deity <sup>\*</sup>*vaēduuōišta-* (< <sup>\*</sup>*vaiiu-duuōišta-*) ‘wind (blowing) most far-off’ on the basis of the transcription of the name in Av. characters in the Dēnkard.
- vaēkərəta-* The name of the seventh land created by Ahura Mazdā (Vd 1.9), whose identification with Gāndhāra has been taken as “proved” by Henning 1947, 52 (= 1977, 286), is explained by Humbach 2014, 5–6 as a compound *vaē-kərəta-* < <sup>\*</sup>*vaiiu-kərəta-* ‘built/founded by Vaiiu’, its first member being Av. *vaiiu-* ‘wind’ personified as a deity.
- vaēpiia-* König 2010, 206–214 provides an extensive discussion of this hapax legomenon in Y 51.12.
- vaēsmaṇda* de Vaan 2001 interprets this hapax legomenon in Yt 10.86 as an abl.sg. in <sup>\*</sup>*-an-t*, to which the postposition *-a* is attached. The form would thus provide a second example for an *n*-stem abl.sg. in *-ant* in addition to *barəsmən* (< <sup>\*</sup>*barsmant*), cf. no.39 above: *n*-stems, p 9.
- vafuš* Like Bartholomae 1904, 1346f., Schwartz 2003, 210 derives this OAv. noun, which is attested in Y 29.6 and 48.9, from the verb *vaf* ‘to weave’ (PIE <sup>\*</sup>*uebʰ*). Positing the etymological meaning as denoting a woven object, ‘a web’, Schwartz translates *vafuš* as ‘(cosmic) design, pattern’, and discusses the phonology and morphology of the stem. Skjærvø 2005a, 274 interprets the noun as ‘hymn’ in the sense of ‘poetic web’.
- vah* Strunk 1999 identifies ‘to stay’ (“(ver)weilen, bleiben”) as the original meaning of the root *vah* (IE. <sup>\*</sup>*h₂ues*), and argues that the meaning ‘to pass the night’ (‘übernachten’) developed by semantic specialisation in the syntactic collocation ‘to stay for the night’, as in YAv. *xšapanəm ... vaṇhaiti* ‘it (i.e. the soul) stays for the night’ (H 2.1, Vyt 8.2 = 54).
- vahma-* Kellens 1994b, 106f. fn. 7 and Skjærvø 2005a, 274f. and fn. 16 survey various etymologies that have been proposed. Assuming dissimilation of the labials <sup>\*</sup>*vafma-* > *vahma-*, both scholars favour the etymology that connects the noun

- with the root *\*uebh* ‘to weave’. By contrast, Hintze [forthcoming] argues that *vahma-* belongs to the word family of the Av. adjective *vohu-* ‘good’ and the Iranian verb *\*pati-yah-* ‘to supplicate’ and forms part of the Caland system of the property concept state-oriented root PIE *\*h<sub>1</sub>ues* ‘to be, become good’.
- vaiiu-* m. ‘wind’. Remmer 2011 provides an explanation for the short root vowel in the Av. noun in contrast to its Ved. counterpart *vāyú-*, see above, p 6f., no. 37 *i-* and *u-* stems. Panaino 2017, 77 fn.18 discusses Pirart’s (e.g. 2003b, further references in Panaino, *ibid.*) proposal to derive the noun from the root *vā* ‘to be void, disappear’ rather than from *vā* ‘to blow’.
- <sup>1</sup>*van* ‘to win, conquer’. Kellens’s 1974, 76–80 conclusion that the four roots *van* posited by Bartholomae 1904, 1350–1353 in fact represent only one root *van* ‘to win, conquer’ is endorsed by de Vaan 2012, 38f., and Ziegler 2004, 4 fn.8 surveys the syntactic constructions of this verb. Kellens 1974, 79 fn.1 considers the OP form *avaniya* to be the only attestation in OIr. of a root *van* whose meaning is different from *van* ‘to win, conquer’. The relationship between *van* ‘to win, conquer’ and *van* ‘to hold dear, desire, love’ (see below s.v. *vāunu-*) remains subject to debate. Gotō 1987, 285, who posits two etymologically distinct roots, notes that the Av. pres. *vana-* formally agrees with that of Ved. *vána-*, but that the former belongs with *van* ‘to win, conquer’, and the latter with *van* ‘to hold dear’. Hettrich 2007 argues that apart from *vāñcha-* all Ved. verbal forms, including the perf. *vāvāna*, traditionally connected with *van* ‘to hold dear’, in fact belong to *van* ‘to win’. Meissner 1993, 47 argues that a set-variant *\*yanH* of the verb *\*yan* ‘to win’ might have developed by analogy with the root *\*sanH* ‘to win’ rather than by analogy with *\*yanH* ‘to hold dear, desire’.
- Ziegler 2004 and Cheung 2007, 205–206 posit an IE root *\*uenh<sub>1</sub>* ‘to throw out, spread’ (cf. Rix *et al.* 2001, 683, and online *Addenda und Corrigenda zu LIV*<sup>2</sup> s.v. *\*uenh<sub>1</sub>* → *\*h<sub>1</sub>uen-* ‘hinschütten, ausstreuen’). Assuming a semantic development from ‘spread out’ to ‘cover, hide’, Ziegler 2004, 3–4 considers the root *van* ‘to throw out, spread’ to be attested in Yt 14.41 and Yt 10.75. De Vaan 2012, 39 accepts this meaning for the former passage but is doubtful about the latter. He dispenses with positing a separate root *van* ‘to spread out’ by assuming that the meaning ‘to throw out, spread’ developed from ‘to win’, and finds Av. evidence for the meaning ‘spread out’ in four compounds ending in *°niuuā* and *°niuuqn*, see no. 62 above: Composition, p 26.
- vara-* Oettinger 2013 discusses different interpretations that have been proposed for *vara-*. Comparing the *vara-* story of Vd 2 with myths of the Flood in other traditions, he suggests that the Avestan tale is an adaptation of a Flood-myth to the geography of Iran.

*varah-* ntr. ‘ordeal’. Goldman 2015, 50–86 provides a detailed discussion of *varah-* and argues that the noun denotes an ordeal ritual.

*varana-*, *varəna-* ‘choice’. König 2010, 168–173 discusses the Av. attestations.

*varc* ‘to pull’. Hill 2007, 277–278 discusses the attestations of the present stem *varəca-*.

*vasna-* While there is general agreement that *vasnā*, the only form of this stem attested in Av., is the istr. sg. of a stem *vasna-*, scholars disagree about the root from which the noun is derived. Regarding the form as a cognate of OP *vašnā*, Hintze 1994, 115 with fn. 130 retains Bartholomae’s 1904, 1393 connection of the stem with the root *vas* ‘to wish’ (< IE *\*uek̑-no-*) and assumes analogical *-sn-* instead of expected *-šn-*, as in *yasna-* instead of *\*yašna-* (Hoffmann & Forssman 2004, 102). Sims-Williams 2001, 61–64 discusses the meaning of the OP form, which only occurs in the fixed expression *vašnā Auramazdāha*, and its Middle Iranian cognates, all of which he connects with the root *vas* ‘to wish’. By contrast, Schwartz 2013, 80 proposes to derive Av. *vasna-* from the root *vaz* ‘to be vigorous’, while Skjærvø 1999, 38–39 and 2011, 326, who considers the evidence for the interpretation ‘by the will of’ as slender, translates OP *vašnā* ‘by the greatness of’ after Szemerényi, but Klein 1988, 393f. fn.12 objects that ‘by the greatness’ is semantically not better than ‘by the will’. As far as Av. *vasnā* is concerned, Skjærvø 2002, 44f. fn.50; 2005b, 56 and 2008, 509, 513 interprets it as ‘in exchange value’, accepting the suggestion of Humbach 1991 II 115 and Humbach & Ichaporia 1998, 88, to dissociate Av. *vasnā* from OP *vašnā* and to connect it instead with Ved. *vasná-* ‘price, value’ and the root IE *\*ues* ‘to sell’. Likewise dissociating Av. *vasnā* from OP *vašnā*, Kellens 2013, 82 interprets *vasnā* as ‘by means of the morning light’ (‘par ... la lumière aurorale’) and derives it from verb *vah* ‘to illuminate, shine’.

*vaśa-* Tucker 2004, 550f. modifies Kellens’s proposal that the present stem *vaśa-* represents a denominative of the fem. root noun *vac-/vāc-* ‘speech’ by suggesting that the present stem is based on the inherited compound *fra-uuāka-* ntr. ‘speaking forth’ (cf. Ved. *sóma-pravāka-*). She argues that by substituting *-yá-* for the thematic vowel *-a-*, a denominative *\*fra-ūāk-īá-* might have developed to Indo-Iranian *\*frauāčīa-* and then further in Iranian to OAv. *\*frauūāśa-*. In forms such as 3sg.ipf.mid. *\*frauūāśata*, shortening of the long root vowel in the antepenultimate syllable might have produced the form *frauūāśata* (Yt 14.54, 17.18, 21), from which the simple present verb stem *vaśa-*, attested in the Vidēvdād, may have been back-formed.

*vazdah-* Pinault 2012 examines the etymology and semantics of the OAv. noun *vazdah-* (Y 49.10) and the YAv. second term of personal names in *°uuazdah-* (Mayrhofer 1979, 24, 59, 100), in connection with a detailed study of scholarship

and attestations of its Ved. congeners *vedhás-* and *védi-*. The etymological equation of Ved. *vedhás-* and Av. *vazdah-* is supported by their syntactic combination with Indo-Iranian *\*Hrtá-* ‘order, truth’, in particular Ved. *vedhā rtásya* and the common personal name YAv. *ašauuazdah-*, OP *\*ṛta-vazdah-*, indirectly attested by Grk Ἀρτάβασδος, Lat. *Artavasdes*, Arm. *Artavazd*. Pinault suggests that Av. *vazdah-* and Ved. *vedhás-* derive from Indo-Iranian *ua-zdh-ah-*. He interprets the latter as a de-genetival derivative IE *\*ue-zd-h₂-és-* from the compound *\*ue-zd-h₂-* ‘ritual seat’, which he posits as the ancestor of Ved. *védi-*. The second part of IE *\*ue-zd-h₂-és* would incorporate an “allomorph” *\*-zd-h₂-és-* of the noun *\*séd-h₂-es-* ‘seat’ (Ved. *sádhiṣ-*). According to him, Indo-Iranian *ua-zdh-ah-* originally referred to the priest who was responsible for the foundation of the altar and the space around it, which provided a seat for the gods attending the ritual as guests. Lundquist 2014, 741 critically reviews Pinault’s reconstruction and points out that the laryngeal *\*-h₂-*, which Pinault posits, lacks justification.

*vaziiamna-* Fritz 2000, 115–116 analyses the OAv. hapax legomenon in Y 53.5 as the middle participle of the future PIr. *\*uad-zia-* from the root *vad* ‘to lead’ (Indo-Iranian *\*uadʰ-*).

*vā* ‘to blow’ see above s.v. *upā.vāuuō*.

*vāunu-* Kümmel 2000, 662f., followed by de Vaan 2003, 85, 376, analyses the hapax legomenon *vāunuš* (Y 28.8) ‘desirous’, as the nom.sg.m. of a reduplicated *u-*stem adj. *vā-un-u-* of the type *ma-mn-u-* of the root *van* ‘to hold dear, desire, love’ (IE *\*uenH*, Rix et al. 2001, 682f.); cf. also above s.v. *van*.

*vāzišta-* In order to account for the long root vowel, Insler 1996, 174, 184 posits a root with long root vocalism Av. *vāz/ūz*, Ved. *vāh/ūh*, for which de Vaan 2004, 594 reconstructs a pre-form Indo-Iranian *\*uaHjʰ*. By contrast, Hintze 2007, 133–137 analyses *vāzišta-* as a deverbative formation from the causative present stem Av. *\*vāzaiia-*, Ved. *vājāya-* ‘to invigorate’, and posits the meaning as ‘most invigorating’, see also no. 48 above: Superlatives, p 13.

*vərəθrayna- mazdaḍāta-* Panaino 1992 [1994] examines the expression *vərəθrayna-mazdaḍāta-* in Vd 19.37, see above s.v. *mazdaḍāta-*.

*vifra-* Rejecting Thieme’s proposal that Av. *vifrō*, a hapax legomenon in Yt 5.61, is borrowed and adapted from Sanskrit, Jackson & Oettinger 2002, 227f. argue that it is based on the Indo-Iranian epithet *\*uipra-* ‘inspired; poet’ (‘begeistert; Dichter’). The latter described a character in a specific rescue story which forms part of Indo-Iranian heroic poetry (see above s.v. *ṛaētaona-*). Following Bartholomae 1904, 357, Schwartz 2008 [2012], 98 takes *ōifra-* in Yt 13.104 as a variant of *vifra-* and translates it as ‘trembling’. He suggests that in the tale of the shipwrecked boatman Pāuruua (*pāuruuō yō vifrō nauuāzō* Yt 5.61), *vifra-* would merely refer to his being tossed about by the sea (p. 100). König 2010, 196–199,

by contrast, concludes that the Av. adj. denotes the ‘inspired singer’, like its Ved. cognate *viprá-*. According to him, in Av. the adj. fell out of use because of its association with *kauui-*, which came to be used as the title of rejected priests; cf. also above s.v. *kauui-* and below s.v. *vip-*.

*viiāxana-* Elaborating on a suggestion by Oettinger and explaining the long *-ā-* of *viiāxana-* ‘eloquent; bragging’ as resulting from the Av. lengthening of short *a* in the position after *i* (*Cijā* > *Cijā*, as proposed by de Vaan 2003, 32), and the vowel preceding *-n-* as anaptyctic, Lubotsky 2012 argues on formal and semantic grounds that Av. *viiāxana-* has a counterpart in the OP month name *Viyax(a)na-*. He suggests that the latter denotes the month of verbal contests at the New Year festival. Rejecting Kuiper’s connection with the Ved. verb *yāc-* ‘to implore’, which is better explained as an extension with a velar of the root *yā* ‘to ask for’, he proposes to connect *viiāxana-* and related nouns with the verb *vac* ‘to speak’ and Ved. *vákman-* ‘utterance, speech’ by deriving *\*ui-īaxna-*, *\*ui-īaxman-* via dissimilation from *\*ui-uaxna-*, *\*ui-uaxman-*. Since one would expect passive meaning for a formation with suffix *-na-*, he further suggests that *\*ui-īaxna-* shows the loss of *-m-* and goes back to *\*ui-īax-mn-a-* ‘pertaining to the verbal contest’, a thematic derivative from *\*ui-īaxman-* (p. 98f.).

*vināθaiia-* Hintze 1994, 124 and fn.169; 2009, 186–189 accepts Kellens’s 1976, 66f. suggestion that *-θ-* instead of the expected *-s-* in the present stem *vināθaiia-* is a Persism, and Cantera 2012–4, 91 and 2017, 43–45 notes that, in the course of the transmission of the Avesta, the Persism must have entered the stem before the Persian sound change of *θ* > *h* took place (cf. Pahl. *wināh* ‘sin, offence’). According to him, the influence of the Persian pronunciation on this Av. word is due to its technical usage and the key importance of the concept it denotes also in the West Iranian tradition.

*vip-* König 2010, 180–281 discusses the Av. attestations and their Pahlavi versions, of *vip-* ‘to vibrate’ and its derivatives. He suggests that the possibility cannot be excluded that *\*uip-* denoted sexual-ecstatic actions in addition to ecstatic speech in PIIr. König 2007 argues that in the Vidēvdād *vaēpaiiō* and *vīptō* show no reference to ecstatic speech and that the two forms denote the active and passive sodomite respectively.

*vis* Hintze 2013 discusses the syntactic combination of a middle form of the verb *vis* ‘to enter, make oneself available’ with a predicative nominative as an example of the adaptation of a Gāthic phrase to a YAv. context. Macuch 2017, 262–264 examines the meaning and the legal context of the Av. phrase *yā ahmāi vīsaṭ* ‘(she,) who makes herself available to him’, quoted in Pursišn 73 of the ninth-century Pahlavi Rivāyat ī Ādurfarrbay.

- viš-* Sommer 2014a rejects the traditional interpretation of the form *viš* in Y 9.11 (= Yt 19.40) as the nom.sg. of a root noun meaning ‘poison’ on the grounds that elsewhere in Avestan and in other IE languages the noun only occurs as a thematic stem. Moreover, he argues that the meaning ‘poison’ is implausible in the context of the stanza. Instead, he postulates a root noun *viš-* ‘horn’. While isolated in Iranian, such a noun would have cognates in other IE languages, including Ved. *viṣāṇā-* f., *viṣāṇa-* ntr. ‘horn’, Germanic words for the ‘bison’ and Old Prussian *wissambs*.
- viš.huška-* Assuming confusion between *huška-* and *hišku-* ‘dry, dried up’, Lubotsky 1999, 318f. suggests that *viš.huškō* in Vd 5.36 is a corrupt form for a form of the stem *hišku-*.
- vīdaēuua-* Cantera 2006 argues that the Av. expression *dāta- vīdaēuua-*, from which the name of the text Vidēvdād derives, means ‘Law that keeps the demons away’. It is concerned with purification rules and contrasts with *dāta- zaraθuštri-* ‘law of Zarathustra’, which deals with legal matters.
- vīduš* Tremblay 1997a, 124 fn. 6 and Rau 1998 argue for the interpretation of the OAv. form *vīduš* as the nom.sg.m. of a *u*-stem adjective *vīdu-* (= Ved. *vidú-*) built on the perfect stem. Rau 1998, 149, 156 argues that the PIIr. verbal adj. *\*uidú-* ‘knowing, knower’ and the verbal subst. *\*uidu-* ‘act of knowing; knowledge’ (in the OAv. inf. *vīduiē*) are inherited formations, see no. 61 above: Infinitives, p 24.
- vīxrūmañt-* Lubotsky 1999, 319f. suggests that *vīxrūmañt-* *x’ara-* describes an injury with bruises.
- vīpta-*, *vaēpaiia-* see s.v. *vip*.
- vīšapta9a-* Bielmeier 1992, 57–58, following Geiger 1882, 319, suggests that *vīšapta9a-* denotes the additional days that were inserted between the seven-day quarters of a month. Hintze 2009b, 103f. and fn. 12 surveys the debate and endorses Bielmeier’s interpretation.
- vīštāspa-* García-Ramón 2005 detects shared inherited onomastic motives in the personal names Av. and OP *vīštāspa-* ‘whose horses have been let loose’ in comparison with the Grk names *Ἰππόλυτος*, *Λύσιππος*, and also in Av. *yuxtāspa-*, *hitāspa-* ‘whose horses have been yoked, bound’ in comparison with Grk *Ζεύξιππος*. Kellens 2002–3, 323 surveys the phonological processes which are entailed by the connection of *vīštāspa-* and *hitāspa-* with the *ta*-participles *\*<sup>o</sup>sH-ta<sup>o</sup>* and *\*<sup>o</sup>sH-ita<sup>o</sup>* respectively, of the verb root *hā* ‘to bind’.
- vī9iši* Janda 2005a, 266–269 analyses the hapax legomenon *vī9iši* in Yt 10.80 as the loc.sg. of a stem *vī9iš-*, which he equates with Ved. *vyáthiṣ-*. He argues that the former shows zero grade, while the latter has the expected full grade of the root. The verb is not attested in Av., but the root is also found in the adj. *aīβi9ūra-* ‘un-



- shakable' (Ved. *á-vithura-*). By contrast, Pirart 2006, 133 and fn.163 reads *vidušt* 'celle qui sait'.
- vīuuāiti* in Y 8.40 is explained by Forssman 2000 as *\*ui-bāti* 'shines forth', from the root *bā* 'to shine'.
- xaβza-* König 2010, 230 fn. 434 discusses explanations that have been put forward for this hapax legomenon in Vd 8.31 and 32. With reference to Parth. *kūž* (and MMP *kūz* 'jug'), he suggests that *xaβza-* goes back to *\*kaβza-* and might be a loan word from Semitic *\*kabza-*. König argues that the initial *x-* of *xaβza-* is by analogy with *xumba-* 'pot', with which it is coordinated in both passages. He also adduces Av. *xan-* 'well' from *kan-* 'to dig' as a further example for *x-* instead of *k-*.
- xrafstra-* Hoffmann & Forssman 2004, 258 (on §71b) suggest that the basic meaning of *xrafstra-* is 'predatory' ('räuberisch'), and consider an etymological connection with Grk κλέπτω.
- xratu-* Piras 1996 argues that the expression *āsna- xratu-* refers to the 'rising' *xratu-* in an eschatological sense. Ahmadi 2014 suggests that *xratu-* is a technical term already existing in Proto-Iranian and denoting "the mental power to attain the divine sphere" in the cult of the Indo-Iranian gods, the *\*daiua-*. According to him, *xratu-* refers to the resourcefulness in achieving the goal of reaching the divine sphere, and has a specifically eschatological function not only in the Gāthās but also in the Younger Avesta and the Pahlavi texts.
- xruui.dru-* Hintze's 1994, 245–246 proposal that this epithet of *aēšma-* 'violence, rage' means 'attacking cruelly', rather than 'of bloody club' (Bartholomae 1904, 540), is further supported by Buyaner 2015, 57–60, who in his fn.133 draws attention to *xruui.γnī-* (Vd 11.9) 'hitting cruelly'.
- xšqnmānē* García-Ramón 2009 discusses this hapax legomenon in Y 29.9 in the light of Ved., Indo-Iranian and IE verbal nouns, see no. 61 above: Infinitives, p 23. Schwartz 2003, 213f.; 2013, 69 argues that the connection with the Ved. root *kṣam* is invalidated by Pašto *zyaməl* 'to endure', whose *zγ-* would require the Av. cognate to have *\*γž-*. Translating *xšqnmānē* as 'instead', he analyses it as *\*xšan-man-aḡ*, the dat. sg. of a stem *\*xšanman-* 'exchange', from an Iranian root *\*xšan*, which he connects with the root *xšnu* (q.v.).
- xšnu* Schwartz 2003, 213f. connects the Iranian root *xšn(a)u*, whose basic meaning he describes as *\*'to satisfy merits or expectations, give hospitality or its cultic equivalent'*, with the Grk noun *\*ξένφος* (> *ξένος*, *ξείνος*) 'host, guest, guest-friend' (literally: *\*'one engaging in institutional gift-exchange'*).
- xšuuīd-* Noting that the word *āzūiti-*, the Av. cognate of Ved. *āhuti-* 'oblation', co-occurs with *xšuuīd-* in all but one of the five Av. passages containing *xšuuīd-*, Jamison 2011 argues that *xšuuīd-* is connected with Av. *x'id*, PIE *\*suid* 'to sweat', a suggestion which de Vaan 2003, 228 fn. 200 has made independently, but with-

out a discussion of the semantic and phonological problems. Jamison surveys the meaning and usage of *xšuuīd-* in OAv. and YAv. On the basis of the Ved. Bahu-vrīhi *svēdu-havya-* ‘whose oblation is sweat’ and of the OAv. expression *āzūtoiš xšuuīd-* ‘the sweat of the oblation’, she postulates that the two elements ‘oblation’ and ‘sweat’ formed a compound that would have been part of the Indo-Iranian liturgical language. A putative pre-Avestan *\*āzūiti-xšuuīd-* would have been broken up into its constituent parts and the “rukified” *š-* in initial “unprotected” position would have been reinforced as *xš-* (p. 26), while outside the liturgical language *xʷid* ‘to sweat’ became part of the daēvic vocabulary, or at least occurs in daēvic contexts (p. 20f.). She concludes that the originally unitary inherited root PIE *\*suid* thus split in Av. into two entities that were dissociated from each other both semantically and phonologically.

*xʷadāta-* In connection with a discussion of the expression *mərəzu pouruuō.xʷadātō* in Vd 19.42, Panaino 1995–6, 198f. endorses Zaehner’s translation of this compound as ‘having, following its own law’, i.e. the law which Panaino identifies with the law of Ahura Mazda.

*xʷafna-* In a study of the “twins stanza” Y 30.3, Ahmadi 2013, 240–243 interprets *xʷafnā* as instr.sg. and explores the concept of sleep and dreams as a “gateway to the beyond or to the beginnings”; for his and other scholars interpretation of this stanza, see above, p 11f., no. 44: Demonstrative pronouns. Panaino 2015a examines oneiric vocabulary in Av. and Pahl. texts with special reference to Y 30.3. Skjærvø 1997, 111 suggests that the passage in Y 30.3 means ‘who have become known as the twin sleeps,’ rather than ‘twin dreams’. In his view, *xʷafnā* could refer to two sleeping foetuses in the sense of the later Zurvanite myth.

*xʷaini-* Positing an Iranian root *\*hyan* ‘to be fresh, pleasant’, with which he also connects the adj. *xʷandra-* ‘pleasant’ (see below s.v.), Cantera 2000, 46 interprets Av. *xʷaini-* as the full grade version of the zero grade Caland form *\*huni*, which he sees attested in the Mlr. adjectives MMP and Parth. *hwnsnd* ‘happy, content’, Bactr. *uonoσivdo, uonασivdo* ‘content, satisfied’ (< *\*huni-sand*). By contrast, Sims-Williams 2007, 273 analyses the Mlr. forms as going back to *\*hu-ni-sand-*.

*xʷairiiaṇt-* Tremblay 1996, 117f. recognises in Y 9.4 *xʷairiiqn* the nom.sg.ntr. of the pres. part. pass. *xʷairiiaṇt-*. The phrase Y 9.4 *xʷairiiqn xʷarəθəm ʰajiiamnəm* means accordingly ‘the food, while being eaten, (was) undiminishing’. After surveying previous proposals, Kellens 1999 restores the nom. dual ntr. of this participle and the 3dual ipf. of the verb *ah* ‘to be’ in the phrase Yt 19.32 *ʰxʷairiieṇti ʰāstəm uiie xʷarəθe ajiiamne* ‘both foods, while being consumed, were undiminishing’. The passages are also discussed in detail by Skjærvø 1999 [2002], 186–187.

*x<sup>v</sup>andra-* Cantera's 2000, 43–45 derives *x<sup>v</sup>andra-* from a formation with the full grade root *\*x<sup>v</sup>an-ra-* with “epenthetic” *-d-* and argues that it forms a Caland system with that *x<sup>v</sup>aini-* (see above s.v.), while Kümmel 2005, 327–329 reconstructs a zero grade form *\*s<sub>u</sub>n-ró-* > PIIr. *\*s<sub>u</sub>an-rá-* > *\*s<sub>u</sub>andrá-*. He considers *x<sup>v</sup>andra-* to be a likely candidate for the sound development *\*u, \*<sub>u</sub>i > an(d), am(d)* in the position before *r*, for which he also finds evidence in Vedic.

*x<sup>v</sup>arənah-* Hintze 1994, 15–33 discusses the meaning and etymology of this noun, and, following an oral communication by K. Hoffmann (p. 31), argues for a primary derivative with suffix *-nah-* from the root PIr. *\*h<sub>u</sub>ar* (IE *\*s<sub>u</sub>el*) ‘to burn without a flame, smoulder’ on phonological (the disyllabic value of the noun) and morphological (*-nah-* being a primary suffix) grounds. In accepting this etymology, Gnoli 1996, 176–178 and 2002, 106–107 abandons his earlier derivation of *x<sup>v</sup>arənah-* from the IE word for ‘sun’, while emphasizing the semantic affinity between the two words. While Elfenbein 2001, 490, 492 regards *x<sup>v</sup>arənah-* to be secondary to *farnah-*, Lubotsky 1998b and 2002a, 191–195 connects *x<sup>v</sup>arənah-* as a Skythian loan word with the Av. adj. *parənaŋ<sup>v</sup>hañt-* ‘abundant’ and equates it with Ved. *pārīnas-* ‘abundance’. Although the equation is supported by phraseological parallels, Tremblay 2000, 194, Panaino 2002a, 95, and Hintze 2007a, 179–180 object to it on the grounds of the *ad-hoc* character of the postulated substitution of *\*parnah* with Scythian *\*farnah-* in all Iranian dialects, and the further substitution of *x<sup>v</sup>a-* for *\*fa-* in Avestan. Schmitt 2006, 1560 also has reservations and notes that, in contrast to the numerous Iranian compounds with *-farnah-* and *-x<sup>v</sup>arənah-*, Ved. attests only one compound with *-pārīnas-*. Tremblay 2008a, 569ff. connects Av. *x<sup>v</sup>arənah-* as ‘splendour’ with Ved. *sphulinginī-* ‘one of the seven tongues of the fire’ and *viṣ pulīṅgáká-* ‘spark’. A completely different analysis is that of Janda 2005, 278–286, who posits an Indo-Iranian compound *\*s<sub>u</sub>arnas-* ‘escaping to the sun’ (‘(sich rettend) zur Sonne kommen’, p. 282) as the basis of Av. *x<sup>v</sup>arənah-*, with the monosyllabic allomorph PIE *\*s(h<sub>2</sub>)uol-* of the word for ‘sun’ as the first term and the root noun of the verb *\*nes* ‘to escape, to return home’ as the second term. Lipp 2009 II 428–431 and Nikolaev 2012–2013, 220–223 likewise connect the first syllable of *x<sup>v</sup>arənah-* with the word for ‘sun’, but interpret *-nah-* as a suffix. Independently from one another (Lipp 2009 II 429 fn.167), they analyse the IE suffix *\*-ne/os-* as a conglomerate of *\*-no-* and *\*-s-*. According to Lipp, *x<sup>v</sup>arənah-* goes back to an IE abstract noun *\*sh<sub>2</sub>uél-nos/\*sh<sub>2</sub>uél-nés-* ‘sunshine’, which he considers to be a secondary denominal *s-*stem derived from *\*sh<sub>2</sub>uél-no-* ‘sunray’ (attested in Ved. *svàrṇa-ra-*, an epithet of Agni). The latter in turn would be the substantivised version of *\*sh<sub>2</sub>uél-nó-* ‘consisting of sunlight, shining’, an adjectival derivative from the heteroclitlic neuter

- noun *\*séh<sub>2</sub>-u<sub>1</sub>/\*sh<sub>2</sub>-uén-* ‘sunlight’. — Gignoux 2007 discusses the interpretation of Av. *x<sup>a</sup>arənah-* in the Pahlavi texts.
- x<sup>a</sup>id* ‘to sweat’, see above s.v. *xšuuīd*.
- yakarə* De Vaan 2003, 68–69 casts doubts on the long vowel of *yākarə* ‘liver’ (Grk ἥπαρ) and argues that the form with a short vowel in the first syllable has a better transmission. The vowel grade of Avestan *yakarə* thus agrees with cognates in MĪr. languages and in Ved., all of which preserve Indo-Iranian *\*iakar-*.
- yasna-* Hintze 2004, 311–315 suggests that when *yasna-* denotes a text, it refers to the Yasna Haptaṅhāiti.
- yašti-/yešti-*; *yašta-* Panaino 1993–4 and 1994 argues that the name Yašt derives from Av. *yašta-* rather than *yašti-/yešti-*. He reconstructs the Av. expression *yaštəm kar* on the basis of Yt 15.56. While Kellens 1996, 41 endorses Panaino’s analysis (although with a caveat, *ibid.* fn.5), Pirart 1997b evaluates it critically. Questioning the derivation of *yašta-* from the root *yaz* ‘to sacrifice, worship’, Pirart proposes to connect *yašta-* with Av. *\*yas* ‘donner un statut particulier’ (p. 376f.), which is preserved in Av. *yasah-*, Ved. *yaśas-* ‘fame’.
- yauuaējī-* Weiss 1994 argues that the Av. compound *yauuaējī-* ‘living forever’, together with Lat. *iūgis* ‘everflowing’, Grk ὑγιής ‘healthy’ and Gothic *ajukdūps* ‘eternity’, goes back to a PIE collocation of *\*h<sub>2</sub>oju-* ‘life’ and *\*g<sup>w</sup>eǵh<sub>3</sub>/\*g<sup>w</sup>i<sub>h</sub><sub>3</sub>* ‘to live’.
- yaxšti-* Tremblay 2009, 331 discusses the etymology of this noun, which has been equated with Ved. *yaṣṭī-* ‘stick’ (Mayrhofer 1992–2001 II 406).
- yaz* Hintze 2007, 181–186 discusses the syntax and semantics of the verb *yaz* and, especially, the question of its construction with a double accusative, and Hintze 2004, 313–315 suggests that the figura etymologica *yasnəm yaz-* denotes specifically the performance of the Yasna Haptaṅhāiti. Oettinger 2010, 279f. endorses the reconstruction of the root’s prehistoric form with root-vowel *\*-a-* as PIE *\*h<sub>1</sub>iāǵ* ‘to revere, worship’.
- yazata-* Kellens 2002–3, 319 and fn.5 points out that no feminine form is attested for the stem *yazata-*.
- yāh-* In contrast to Narten 1986, 149–155, who derives the noun *yāh-* from *yā* ‘to ask for, request’, Schwartz 2003a, 377–378 and 2014, 22–23 connects it with the homonymous root *yā* ‘to race, to course’, and argues for the meaning ‘(chariot-) race’ and, by semantic shift, ‘agon’. The question of the root’s identity is reviewed by Hintze 2007, 128–131, who translates the noun as ‘appeal, entreaty’.
- yātu-* Sommer 2014 discusses the etymology of Indo-Iranian *\*iātu-* and argues that the noun is derived with suffix *\*-tu-* from the PIE root *\*H<sub>1</sub>ieh<sub>1</sub>* ‘to throw’.
- yima-* Schwartz 2002 [2006], 55–56 discusses the recasting of the name *yima-* in the Gāthās, while Scharfe 2014 examines Yama’s Path in the R̥gveda and the Avesta.

The volume edited by Azarnouche & Redard 2012 explores various aspects of the Indo-Iranian myth of *\*īama-*. Oettinger 2016a, 238f. suggests that the ancestor figure of Yima formed part of an PIE creation myth, in which *\*h<sub>2</sub>iǵmH-ó-* was split and came to form one of a pair of twins in Indo-Iranian Oettinger 2013a, 176f. reconstructs the form as PIE *\*h<sub>2</sub>iǵm-h<sub>2</sub>-ó-* ‘belonging to a duplicate, belonging to imitation’, and interprets the latter as a derivative from *\*h<sub>2</sub>iǵm-éh<sub>2</sub>-* ‘duplicate’, on which Lat. *imāgō* ‘image’ is based.

*yuua-* Skjærvø 1997c argues that the Av. word for ‘yoke’ was *yuua-* (< *\*yuya-*, Ved. *yugá-*) and that it forms part of the compound *yauuō.fra9ō* ‘having the width of a yoke’ in Vd 19.19.

*yuxtāspa-* see *vīštāspa-*.

*zəmanā-* Hintze 2000, 76f. and 218f. discusses the etymology and semantics. On Sogd. *zmnh* ‘income’ (?) in Ancient Letter II, see Sims-Williams 2001a, 278.

*zruuan-* Lubotsky 1997a, 147; 1998a discusses the semantics, inflection and etymology of this noun. He endorses the traditional derivation of *zruuan-* ‘life-time, time-span’ from the PIE root *\*ǵerh<sub>2</sub>* ‘to become old’ but redefines the phonetic processes that have led to this stem. He argues that the Av. masc. stem originally formed one paradigm with *zauruuan-* ‘old age, senility’ and was remodelled from an IIr. heteroclitic *-r/n-* neuter with nom.sg. *\*ǵrH-ur*, gen. *\*ǵrH-urāns*. Accepting Lubotsky’s reconstruction, Panaino 2017a continues his studies (listed *ibid.* p. 153) of the linguistic, religious, liturgical and theological significance of the notion of time in Iran. Rezanian 2010 examines the Zoroastrian concept of time in Avestan, Middle Persian and non-Iranian sources.

## References

- Adhami, S. (ed.) 2003. *Paitimāna*. Essays in Iranian, Indo-European, and Indian Studies in Honor of Hanns-Peter Schmidt. 2 vols, Costa Mesa, California: Mazda Publishers.
- Ahmadi, A. 2012. The Syntax and Sense of the *Ahuna Vairiia*. *JRAS* 22, 519–540.
- . 2013. The Twins Stanza, Y 30.3. *IrSt* 46, 227–249.
- . 2013a. Y 19 *manas.paoiriia-* and *aša.paoiriia-*. *IrSt* 46, 863–876.
- . 2014. Avestan *xratu-*. *IrSt* 47, 903–913.
- . 2014a. Y 34.9 *ašā* and Other Unexpected Plurals in the Gāthās. *IJJ* 57, 61–72.
- . 2014b. Old Persian *duvītāparanam* and Gāthic *daibitā(nā)*. *StIr* 43, 41–82.
- . 2015. *The Daēva Cult in the Gāthās*. An ideological archaeology of Zoroastrianism. London and New York: Routledge (Iranian Studies 24).
- . 2015a. What is *aša-*? *BSOAS* 78, 293–315.

- . 2016. *hañt-* and *haiθiia-* in the Old Avestan Texts. *JRAS* 26 741–755.
- . 2017. Avestan *ciθra-*. *Dabir* 3, 51–55.
- Aikio, A. & P. Kallio 2005 [2006], Review of H. Katz 2003. *Die Sprache* 45, 212–222.
- Albino, M. 2001. Avestisch *auuaxiiāi. rafenō.xiiāi*. *HS* 114, 66–72.
- Altman Bromberg, C., N. Sims-Williams, and U. Sims-Williams (eds.) 2005 [2009]. *Iranian and Zoroastrian Studies in Honor of Prods Oktor Skjærvø* (= *Bulletin of the Asia Institute* 19).
- Andrés-Toledo, M.-Á. 2009. The Indo-Iranian noose of death. In: Pirart & Tremblay (eds.) 2009, 1–16.
- . 2010. *El hilo de la vida y el lazo de la muerte en la tradición indoiranica*. Valencia: Institució Alfons el Magnànim.
- . 2013. The Dog(s) of Zoroastrian Afterlife. In: Pirart (ed.) 2013, 13–25.
- Anreiter, P. & E. Jerem (eds.) 1999. *Studia Celtica et indogermanica*. Festschrift für Wolfgang Meid zum 70. Geburtstag. Budapest: Archaeolingua.
- , M.L. Haslinger & H.D. Pohl (eds.) 2004. *Artes et Scientiae*. Festschrift für Ralf-Peter Ritter zum 65. Geburtstag. Wien: Edition Praesens.
- Azarnouche, S. & C. Redard (eds.) 2012. *Yama/Yima*. Variations indo-iraniennes sur la geste mythique. Variations on the Indo-Iranian Myth of Yama/Yima. Paris: Collège de France.
- Bader, F. 1999. Les Grands de l’*Iliade* et les Achéménides. *Revue des études grecques* 112, 337–382.
- Bailey, H.W. 1943. *Zoroastrian Problems in the Ninth Century Books*. Oxford: Clarendon Press (reprint with Introduction 1971).
- Balles, I. 1997. Griechisch ἄφ(ε)νος „Reichtum“. *HS* 110, 215–232.
- Barddal, J. & Th. Eythórdsson 2009. The origin of the oblique-subject construction: An Indo-European comparison. In: Bubenik *et al.* (eds.) 2009, 179–193.
- Bartholomae, Ch. 1895–1901. Vorgeschichte der Iranischen Sprachen; Awestasprache und Altpersisch. In: W. Geiger & E. Kuhn (eds.), *Grundriß der Iranischen Philologie*. Straßburg: Trübner, vol. I 1, 1–248.
- . 1904. *Altiranisches Wörterbuch*. Straßburg: Trübner, repr. Berlin/New York: de Gruyter, 1979.
- Bendahan, J. 1993. *Der reduplizierte Aorist in den indogermanischen Sprachen*. Egelsbach/Köln/New York: Hänsel-Hohenhausen.
- Beekes, R.S.P. 1988. *A Grammar of Gatha-Avestan*. Leiden: E.J. Brill. Review: J.E. Rasmussen, *Kratylos* 36, 1991, 109–116.
- . 1999. Review of Hoffmann & Forssman 1996. *Kratylos* 44, 62–71.
- Bendahan, J. 1993. *Der reduplizierte Aorist in den indogermanischen Sprachen*. Egelsbach/Köln/New York: Hänsel-Hohenhausen.

- Benkato, A. 2017. *Āzandnāmē. An Edition and Literary-Critical Study of the Manichaean-Sogdian Parable-Book*. Wiesbaden: Reichert Verlag (Beiträge zur Iranistik 42).
- Benveniste, E. 1940. *Textes Sogdiens*. Édités, traduits et commentés. Paris: Librairie orientaliste Paul Geuthner (Mission Pelliot en Asie Centrale III).
- Bichlmeier, H. 2011. *Ablativ, Lokativ und Instrumental im Jungavestischen*. Ein Beitrag zu altiranischen Kasussyntax. Hamburg: Baar (Studien zur historisch-vergleichenden Sprachwissenschaft, Bd.1).
- Bielmeier, R. 1992. Zur Konzeption des avestischen Kalenders. *MSS* 53, 15–74.
- Blažek, V. 1998. Indo-European ‘eight’. *HS* 111, 209–224.
- . 1999. Indo-European “one” and “first”. *Sborník prací filosofické fakulty Brněnské univerzity / Studia Minora Facultatis Philosophicae Universitatis Brunensis* 47, 5–25.
- . 1999a. Indo-European “three”. *Lingua Posnaniensis* 40, 33–45.
- . 1999b. Indo-European “nine”. *HS* 112, 188–203.
- . 1999c. Indo-European “hundred”. *History of Language* 5, 71–82.
- . 1999d. Indo-European “thousand”. *Studia etymologica cracoviensia* 4, 17–39.
- . 1999e. *Numerals. Comparative-etymological analyses of numeral systems and their implications*. Brno: Masarykova univerzita.
- . 2000. Indo-European “six”. *Sborník prací filosofické fakulty Brněnské univerzity / Studia Minora Facultatis Philosophicae Universitatis Brunensis* 48, 5–18.
- . 2005. Indo-Iranian elements in Fenno-Ugric mythological lexicon. *IF* 110, 162–185.
- Blois, F. de. 1995. *gātu-* ‘place’. *Iran* 33, 61–65.
- . 2013. Bactria, Bāxḏī-, Balx. In: S. Tokhtasev and P.B. Lurje (eds.), *Commentationes Iranicae: Vladimiro F. Aaron Livschits nonagenario donum natalicium*. Сборник статей к 90-летию Владимира Ароновича Лившица [The Collection of Articles on the 90th anniversary of Vladimir Aronovich Livshits]. St Petersburg: Nestor-Istorija, 268–271.
- Blokland, R. & C. Hasselblatt (eds.) 2002. *Finno-Ugrians and Indo-Europeans: Linguistic and Literary Contacts*. Proceedings of the Symposium at the University of Groningen, November 22–24, 2001 (Studia Fenno-Ugrica Groningana, 2). Maastricht: Shaker Publishing.
- Brust, M. 2005. *Die indischen und iranischen Lehnwörter im Griechischen*. 2., verbesserte und vermehrte Auflage 2008. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck (IBS 118).
- Bubenik, J., J. Hewson & S. Rose (eds.) 2009. *Grammatical change in Indo-European languages: Papers presented at the workshop on Indo-European linguistics*.

- tics at the XVIIIth international conference on historical linguistics, Montreal, 2007. Amsterdam: John Benjamins (Current issues in linguistic theory 305).
- Buyaner, D.B. 2014. Zur etymologischen Beurteilung des Pahlavi-Rechtsbegriffes <stwr>. *ZDMG* 164, 699–718.
- . 2015. Zur semantischen und etymologischen Beurteilung des Pahlavi Rechtsbegriffs *drōš* mit einem Exkurs über die indogermanische Sippe *\*d<sup>h</sup>ru(C)*-. Beiträge zur Erklärung der mittelpersischen Rechts- und Religionsterminologie. III. In: Cantera & Ferrer (eds.) 2015, 43–70.
- Bynon, Th. 2005. Evidential, raised possessor, and the historical source of the ergative construction in Indo-Iranian. *TPS* 103, 1–72.
- Cantera, A. 1994–5. Av. *ḡraoštā*. *Studi orientali e linguistici* 5, 87–89.
- . 1999. Av. *ayiriia*- und *siyuriia*-. Zu einem umstrittenen Lautgesetz im Jungavestischen. *MSS* 59, 39–50.
- . 2000. Uriran. *\*hyan*-, germ. *\*swinpa*-. Die indogermanische Wurzel *\*suen*-. In: Forssman & Plath (eds.) 2000, 37–50.
- . 2001. Die Behandlung der idg. Lautfolge *(C)rHC*- im Iranischen. *MSS* 61, 7–27.
- . 2001–2. Consideraciones sobre la formación del nominativo-acusativo plural de los nombres neutros en indoeuropeo. *Veleia* 18–19, 237–256.
- . 2003. Zu avestisch *aša*-. In: Adhami (ed.) 2003, 250–265.
- . 2004. *Studien zur Pahlavi-Übersetzung des Avesta*. Wiesbaden: Harrassowitz (Iranica 7).
- . 2004a. Los viajes al más allá en el Irán preislámico. In: M.L. Sánchez León (ed.). *Religions del món antic 4. El més enllà*. Palma de Mallorca: Fundació Sa Nostra, 79–119.
- . 2005. Adverbial-prädikative Adjektive im Indoiranischen. *HS* 118, 101–129.
- . 2006. Was ist av. *dāta*- *vīdaēuuā*-? In: Panaino & Piras (eds.) 2006, 53–63.
- . 2006a. Review de Vaan 2003. *ZDMG* 156, 234–238.
- . 2007. The accusative of the *i*- and *u*-stems with presuffixal full or large grade in Avestan. In: Macuch *et al.* (eds.) 2007, 9–20.
- . 2012–4. On Avestan *aiβiθiiō* (V18.17 & 25). *Faventia* 34–36, 89–97.
- . 2013. Talking with god: The Zoroastrian *ham.paršti* or intercalation ceremonies. *JA* 301, 85–138.
- . 2016. On Avestan text criticism (2): the accusative singular of the *ū*- and *ua*-stems in the Long Liturgy. In: Pirart (ed.) 2016, 89–156.
- . 2017. La liturgie longue en langue avestique dans l'Iran occidental. In: Henkelman & Redard (eds.) 2017, 21–67.
- . & J. Ferrer-Losilla (eds.) 2015. *açit̥ bā nēmō haōmāi*. Homenaje a Éric Pirart en su 65º aniversario (= *Estudios Iranios y Turanios* 2). Girona: Sociedad de Estudios Iranios y Turanios.



- Carruba, O. 1999. The Numerals “1” in Indo-European: \*oi- and \*sem-. In: Anreiter & Jerem (eds.) 1999, 53–60.
- Cathcart, C.A. 2014. Analogical Morphophonology and Iranian Words with Irregular *f*. In: Jamison *et al.* (eds.) 2014.
- Catt, A. 2014. The Derivational Histories of Avestan *aēšma-* ‘firewood’ and Vedic *idhmá-*. In: Jamison *et al.* (eds.) 2014, 39–48.
- Cereti, C. 2005. Avestan names and words in Middle Persian garb. In: Cereti & Maggi (eds.) 2005, 237–252.
- . 2011. Copulative Compounds in Iranian Onomastics. In: Th. Krisch & Th. Lindner (eds.), *Indogermanistik und Linguistik im Dialog*. Akten der XIII. Fachtagung der Indogermanische Gesellschaft vom 21. bis 27. September 2008 in Salzburg. Wiesbaden: Reichert Verlag, 110–119.
- , M. Maggi & E. Provasi (eds.) 2003. *Religious themes and texts of pre-Islamic Iran and Central Asia: Studies in honour of Professor Gherardo Gnoli on the occasion of his 65<sup>th</sup> birthday on 6 December 2002*. Wiesbaden: Reichert.
- , & M. Maggi (eds.) 2005. *Middle Iranian Lexicography: Proceedings of the Conference held in Rome, 9–11 April 2001*. Roma: Istituto Italiano per L’Africa e l’Oriente (Orientalia Romana 8).
- , & F. Vajifdar (eds.) 2003. *Ātaš-e Dorun. The Fire Within: Jamshid Soroush Soroushian Memorial Volume II*. Assembled Papers on History and Culture of Ancient Iran in Commemoration of the life of Jamshid Soroush Soroushian 1914–1999. Coordinated by Mehrborzin Soroushian. Bloomington, IN: 1stBooks.
- Cheung, J. 2007. *Etymological dictionary of the Iranian verb*. Leiden / Boston: Brill (Leiden Indo-European Etymological Dictionary Series, 2).
- Choksy, J. & J. Dubeansky (eds.) 2013. *Gifts to a Magus, Indo-Iranian Studies Honoring Firoze Kotwal*. New York etc.: Peter Lang (Toronto Studies in Religion).
- Ciancaglini, C.A. 2005. Iranian Loanwords in Syriac: Some Problems in Chronology and Cultural History. In: Cereti & Maggi (eds.) 2005, 253–276.
- . 2006. Syriac language i. Iranian loanwords in Syriac. *Encyclopædia Iranica*, online edition, available at <http://www.iranicaonline.org/articles/syriac-language-i>.
- . 2011. The Formation of the Periphrastic Verbs in Persian and Neighbouring Languages. In: M. Maggi & P. Orsatti (eds.), *The Persian language in history*. Wiesbaden: Reichert (Beiträge zur Iranistik 32).
- . 2012. Outcomes of the Indo-Iranian Suffix \*-ka- in Old Persian and Avestan. In: G.P. Basello & A.V. Rossi (eds.), *Dariosh Studies II*. Persepolis and its settlements: Territorial system and ideology in the Achaemenid state. Napoli: Università degli Studi di Napoli “L’Orientale” (Università degli Studi di Napoli

- “L’Orientale”, Dipartimento Asia, Africa e Mediterraneo Series Minor LXXVIII), 91–100.
- . 2012a. Il suffisso indo-ir. *\*-ka-* nelle lingue iraniche antiche. *Archivio glottologico italiano* 97, 3–33.
- . [forthcoming]. *Old and Middle Iranian outcomes of the suffix Proto-Indo-European suffix \*-ko-*.
- Clark, M. 2017. *The Tawny One: Soma, Haoma and Ayahuasca*. London: Muswell Hill Press.
- Cooper, A., J. Rau & M. Weiss (eds.) 2012. *Multi nominis grammaticus*. Festschrift for Alan J. Nussbaum. Ann Arbor: Beech Stave Press.
- Crespo, E. & J. L. García-Ramón (eds.) 1997. *Berthold Delbrück y la sintaxis indoeuropea hoy*. Actas del Coloquio de la Indogermanische Gesellschaft Madrid, 21–24 de septiembre de 1994. Madrid & Wiesbaden: Ediciones de la Universidad Autónoma de Madrid & Reichert Verlag.
- Danesi, S. 2014. Accusative Subjects in Avestan: ‘Errors’ or Non-Canonically Marked Arguments? *IJ* 57, 223–260.
- Dell’Oro, F. 2015. *Leggi, leghe suffissali e sistemi “di Caland”: Storia della questione “Caland” come problema teorico della linguistica indoeuropea*. Innsbruck: Institute für Sprachwissenschaft (IBS 149).
- Dieu, É. 2011. *Le supplétisme dans les formes de gradation en grec ancien et dans les langues indo-européennes*. Genève: Librairie Droz (Hautes études du monde gréco-romain 46).
- . 2013. Review of Bichlmeier 2011. *BSL* 108/2, 2013, 163–166.
- . 2015. Review of Janda 2014. *BSL* 110/2, 203–215.
- Doctor, R. 2004. *The Avestā: A lexico-statistical analysis (direct and reverse indexes, hapax legomena and frequency counts)*. Leuven: Peeters (Acta Iranica 41).
- Dōyama, E. 2003. Indo-Iranian *\*mans d<sup>h</sup>ā*: A Morphological Study. *Tokyo University Linguistic Papers (TULIP)* 33, 83–98.
- Duchesne-Guillemin, J. 1936. *Les composés de l’Avesta*. Liège: Faculté de philosophie et lettres and Paris: E. Droz.
- Dunkel, G. 2014. *Lexikon der indogermanischen Partikeln und Pronominalstämme*. 2 vols. Heidelberg: Winter.
- . 2016. Proto-Indo-Iranian *\*striH-* and PIE *\*sór-* ‘female, woman’. In: Gunkel *et al.* (eds.) 2016, 36–45.
- Durkin-Meisterernst, D. 2017. Yima’s *anādruxti-*. In: Morano *et al.* (eds.) 2017, 93–98.
- Eichner, H. 1985. Das Problem des Ansatzes eines urindogermanischen Numerus ‘Kollektiv’ (‘Komprehensiv’). In: B. Schlerath & V. Rittner (eds.), *Grammatische*

- Kategorien: Funktion und Geschichte.* Akten der VII. Fachtagung der Indogermanischen Gesellschaft, Berlin 1983. Wiesbaden: Reichert, 134–169.
- . 2002. Indogermanische Seelenbegriffe. In: J. Figl & H.-D. Klein (eds.), *Der Begriff der Seele in der Religionswissenschaft*. Würzburg: Verlag Königshausen & Neumann, pp. 131–141.
- . & H.C. Luschützky (eds.) 1999. *Compositiones indogermanicae in memoriam Jochem Schindler*, unter redaktioneller Mitwirkung von V. Sadovski. Praha: Enigma Corporation.
- . B.G. Fragner, V. Sadovski & R. Schmitt (eds.) 2006. *Iranistik in Europa – gestern, heute, morgen*. Wien: Österr. Akademie der Wissenschaften (SbÖAW 739).
- Elfenbein, J. 2001. Splendour and Fortune. In: Schmidt & Bisang (eds.) 2001, 485–496.
- Emmerick, R.E. 1992. Old Indian. In: Gvozdanović (ed.) 1992, 163–198.
- . 1992a. Iranian. In: Gvozdanović (ed.) 1992, 289–345.
- Filippone, E. 2017. On the Meaning of Avestan *nāuuia-* and Pahlavi *\*nāydg*. In: Morano *et al.* (eds.) 2017, 99–138.
- Fischer, H. & R.-P. Ritter 1991. Zu Bartholomae (jungavest.) *aēta-* “das gebührende Teil”. *MSS* 52, 9–13.
- Flattery, D.S. & M. Schwartz 1989. *Haoma and Harmaline*. The Botanical Identity of the Indo-Iranian Sacred Hallucinogen “Soma” and its Legacy in Religion, Language, and Middle Eastern Folklore. Berkeley, Los Angeles & London: University of California Press.
- Folmer, M.L. 1995. *The Aramaic Language in the Achaemenid Period*. A Study in Linguistic Variation. Leuven: Peeters (Orientalia Lovaniensia Analecta).
- Forssman, B. 1986. Vedisch *sākām*. *Die Sprache* 32, 22–28.
- . 1995. Gedankenschnell. In: H. Hettrich *et al.* (eds.), *Verba et structurae. Festschrift für Klaus Strunk zum 65. Geburtstag*. Innsbruck: Institut für Sprachwissenschaft, 23–32.
- . 2000. Jungavestisch *vīuuāiti* Yt 8,40. In: Forssman & Plath (eds.) 2000, 103–109.
- . 2005. Zwischen Himmel und (zwischen) Erde. In: Schweiger (ed.) 2005, 105–112.
- . 2009. Eine Stilfigur im Avesta. In: Pirart & Tremblay (eds.) 2009, 69–77.
- . 2016. Homerisch *πρόκλυτος*, avestisch *frasrūta-*. In: Gunkel *et al.* (eds.), 2016, 57–63.
- . & R. Plath (eds.) 2000. *Indoarisch, Iranisch und die Indogermanistik*. Arbeitstagung der Indogermanischen Gesellschaft vom 2. bis 5. Oktober 1997 in Erlangen. Wiesbaden: Reichert.

- Fortson, B.W. IV 2012. Pre-Italic *\*-dh̥ē* (*\*-dh̥eh₁*) versus Pre-Indo-Iranian *\*-dh̥ioi*: Bridging the Gap. In: Cooper *et al.* (eds.), 50–60.
- . 2012a. Latin *-rier* and its Indo-Iranian congeners. *IF* 117, 75–118.
- Fragner, B.G., Chr. Fragner, Gh. Gnoli, R. Haag-Higuchi, M. Maggi & P. Orsatti (eds.) 1995. *Proceedings of the Second European Conference of Iranian Studies* held in Bamberg, Sept. 30–Oct. 4, 1991. Rome: Rome: Istituto Italiano per il Medio ed Estremo Oriente.
- Fritz, M. 2000. Die indoiranische Bezeichnung für ‘heiraten’. Rekonstruktion auf der Basis indirekter Evidenz. In: Forssman & Plath (eds.), 111–118.
- García-Ramón, J. L. 1991. Insuficiencia gráfica y aporía morfológica en las escrituras silábicas: los infinitivos en <-ta-na-i-ya> del antiguo *persa*. *Minerva* 5, 9–25.
- . 1993. Zur Morphosyntax der passivischen Infinitive im Oskisch-Umbrischen: u. *-f(e)i*, o. *-fir* und ursabell. *\*-fīē* (*\*-dh̥ieh₁*). In: H. Rix (ed.), *Oskisch-Umbrisch, Texte und Grammatik*. Arbeitstagung der Indogermanischen Gesellschaft und der Società Italiana di Glottologia vom 25. bis 28. September 1991 in Freiburg. Wiesbaden: Reichert, 106–124.
- . 1994. Correspondencias y ecuables en la reconstrucción indoeuropea: chipr. *to-we-na-i* /dowenai/, véd. *dāvāne*, IE *\*dh₃-úēn-*. In: L. Macía, V. Picon Garcia, M.E. Torrego Salcedo & J. de la Villa Pollo (eds.), *Quid Ultra Faciam?* Madrid: Clasicas, 45–55.
- . 1997. Infinitive im Indogermanischen? Zur Typologie der Infinitivbildungen und zu ihrer Entwicklung in den älteren Indogermanischen Sprachen. *Incontri Linguistici* 20, 45–69.
- . 1997a. Infinitivos y abstractos verbales en indoiranio. Las formaciones en *-(C)ani* en ṛgveda. In: Pirart (ed.) 1997, 29–50.
- . 1998. Indogermanisch *\*gʰen* ‘(wiederholt) schlagen, töten’. In: Jasanoff *et al.* (eds.) 1998, 139–154.
- . 1999. Zur Bedeutung indogermanischer Verbalwurzeln: *\*h₂nek̑* ‘erreichen, reichen bis’, *\*h₁nek̑-* ‘erhalten, (weg)nehmen’. In: Habisreiter *et al.* (eds.) 1999, 47–80.
- . 2000. Indoiranische Wurzelpräsentia und iterativer Verbalcharacter. In: Forssman & Plath (ed.), 119–131.
- . 2004. Review of Kümmel 2000. *Kratylos* 49, 63–75.
- . 2005. Av. *Yuxtāspa-* und av.ap. *Vīštāspa-*, griech. *Ζεύξιππος*, *Ἰππόλυτος* bzw. *Λόσυππος*. In: N.N. Kazansky (ed.) in collaboration with E.R. Kryuchkova, A.S. Nikolaev & A. V. Shatskov, *Hṛdā́ mānasā. Studies Presented to Professor Leonard G. Herzenberg on the Occasion of His 70th Birthday / Sbornik statei k 70-letiiu so dnia rozhdeniia professora Leonarda Georgievicha Gertsenberga*. Sankt-Peterburg: Nauka, 323–331.

- . 2009. Infinitifs et abstraits verbaux en indo-iranien: v-av. *xšqnmānē* et sa pré-histoire. In: Pirart & Tremblay (eds.) 2009, 79–93.
- . 2009a. Formal correspondences and different functions: On the reconstruction of inflectional categories in Indo-European. In: Bubenik *et al.* (eds.) 2009, 237–250.
- . 2010. Hethitisch *nakkī-* und homerisch *φέριστος* : avestisch [*°*]*bairišta-*, homerisch *φέρτερος*, *-τατος*. In: J. Klinger, E. Rieken & Ch. Rüster (eds.), *Investigationes Anatolicae: Gedenkschrift für Erich Neu*. Wiesbaden: Harrassowitz, 73–89.
- . 2012. From RUN to DESIRE: Lat. *auēre* ‘desire, be eager, long (for)’ and *\*h<sub>2</sub>eu<sub>h</sub>₁-* ‘run (to/for)’, Lat. *accersere* ‘go forth’, ‘fetch’ and Toch. B *ñäsk-* ‘desire’, Ved. *aviṣ-yú-* ‘greedy’. In: V. Orioles (ed.), *Per Roberto Gusmani: linguaggi, culture, literature. Studi in ricordo*, vol. II/1. Udine: Forum, 152–166.
- Geiger, W. 1882. *Ostīrānische Kultur im Altertum*. Erlangen: Verlag von Andreas Deichert.
- Geldner, K.F. 1877. *Über die Metrik des jüngeren Avesta nebst Übersetzung ausgewählter Abschnitte*. Tübingen: H. Laupp.
- . 1889–1896. *Avesta. The sacred books of the Parsis*. 3 vols., Stuttgart: Kohlhammer.
- Gershevitch, I. 1959. *The Avestan Hymn to Mithra. With an Introduction, Translation and Commentary*. Cambridge: CUP, repr. 1967.
- . 1995. Approaches to Zoroaster’s Gathas. *Iran* 33, 1–29.
- . 1996. A helping hand from Central Asia. In: *La Persia e l’Asia Centrale. Da Alessandro al X Secolo*. Atti del Convegno Internazionale (Roma, 9–12 Novembre 1994). Roma: Accademia Nazionale dei Lincei (Atti dei Convegni Lincei 127), 49–75.
- Gignoux, Ph. 2007. How has the Avestan *xvarənah* been interpreted in the philosophical Pahlavi Texts? In: Vahman & Pedersen (eds.) 2007, 175–184.
- Gippert, J. 1993. *Iranica Armeno – Iberica*. Studien zu den iranischen Lehnwörtern im Armenischen und Georgischen. 2 vols., Wien: Verlag der Österreichischen Akademie der Wissenschaften (SbÖAW 606).
- . 1998. How to kill a cow in Avestan. In: Jasanoff *et al.* (eds.) 1998, 165–181.
- . 2002. The Avestan language and its problems. In: N. Sims-Williams (ed.), *Indo-Iranian languages and peoples*. Oxford: OUP, 165–187.
- Gnoli, Gh. 1993. *Iran als religiöser Begriff im Mazdaismus*. Opladen: Westdeutscher Verlag.
- . 1996. Über das iranische *\*hyarnah-*: lautliche, morphologische und etymologische Probleme: zum Stand der Forschung, *AF* 23, 171–180.
- . 2002. Nuove note sullo *\*hyarnah-*. In C. Silvi Antonini *et al.* (eds.), *Oriente e Occidente. Convegno in ricordo di Mario Bussagli*; Roma, 31 maggio–1 giugno 1999. Pisa. Roma: Istituti Editoriali e Poligrafici Internazionali, 104–108.

- Goldman, L. 2015. *Rašn Yašt. The Avestan hymn to 'Justice'*. Wiesbaden: Reichert (Beiträge zur Iranistik 39).
- Gordon, R.C. 2012. *Derivational morphology of the Early Irish verbal noun*. PhD thesis, University of California, Los Angeles.
- Gotō, T. 1987. *Die "I. Präsensklasse" im Vedischen*. Untersuchungen der vollstufigen thematischen Wurzelpräsentia. Wien: Verlag der Österreichischen Akademie der Wissenschaften (SbÖAW 489).
- . 1999. Notizen zur altindischen und avestischen Syntax. In: Eichner & Luschützky (eds.) 1999, 127–142.
- . 2000. Vasiṣṭha und Varuṇa in RV VII 88. Priesteramt des Vasiṣṭha und Suche nach seinem indoiranischen Hintergrund. In: Forssman & Plath (eds.) 2000, 147–161.
- . 2004. Notizen zu Verben in Yasna 9 (Hōm Yašt). *Orient* 39, 122–146.
- . 2013. *Old Indo-Aryan morphology and its Indo-Iranian background*. In co-operation with J.S. Klein and V. Sadovski. Wien: Österreichische Akademie der Wissenschaften (SbÖAW phil.-hist. Klasse 849).
- Grenet, F. 2006 [2010]. Iranian Gods in Hindu Garb. *BAI* 20, 87–99.
- Grestenberger, L. 2013. The Indo-Iranian *cákri*-type. *JAOS* 133, 269–293.
- Gunkel, D., J. T. Katz, B. Vine, & M. Weiss (eds.) 2016. *Sahasram Ati Srajas*. Indo-Iranian and Indo-European Studies in Honor of Stephanie W. Jamison. Ann Arbor: Beech Stave Press.
- Gvozdanović, J. 1992. (ed.), *Indo-European Numerals*. Berlin, New York: de Gruyter (Trends in Linguistics. Studies and Monographs 57).
- Habisreitering, J., R. Plath & S. Ziegler (eds.) 1999. *Gering und doch von Herzen*. 25 indogermanistische Beiträge Bernhard Forssman zum 65. Geburtstag. Wiesbaden: Reichert.
- Haig, G. 2008. *Alignment change in Iranian languages: A Construction Grammar approach*. Berlin: Mouton de Gruyter (Empirical Approaches to Language Typology 37).
- Hale, M. 1993. Tmesis and movement in Avestan. *IJJ* 36, 29–43.
- Hardarson, J. A. 1993. *Studien zum urindogermanischen Wurzelaorist und dessen Vertretung im Indoiranischen und Griechischen*. Innsbruck: Institut für Sprachwissenschaft (IBS 74).
- . 2005. Der geschlechtige Nom.Sg. und der neutrale Nom.-Akk. Pl. der *n*-Stämme im Urindogermanischen und Germanischen. In: Meiser & Hackstein (eds.) 2005, 214–236.
- Haudry, J. 1993. Altindisch *arí-*, Griechisch *ἔρις*, *ἐρί-*, *ἄρι-* und der Gott *Aryaman*. In: G. Meiser, G. (ed.), *Indogermanica et Italica. Festschrift für Helmut Rix zum 65.*

- Geburtstag*. Unter Mitarbeit von J. Bendahmen, J.A. Hardarson, Ch. Schaefer. Innsbruck: Institut für Sprachwissenschaft, 1993, 169–189.
- . 1995. \*fravarti-: \*wurdi-. Une concordance irano-germanique? *BSL* 90, 149–178.
- Heenen, F. 2006. *Le desideratif en védique*. Amsterdam: Rodopi (Leiden Studies in Indo-European 13).
- Helminski, E. 2002. Zu den iranischen Lehnwörtern im Ungarischen. In: Blokland & Hasselblatt (eds.) 2002, 105–111.
- Henkelman, W. F. M. & C. Redard (eds.) 2017. *Persian Religion in the Achaemenid Period*. La religion perse à l'époque achéménide. Wiesbaden: Harrassowitz (Classica et Orientalia 16).
- Henning, W.B. 1947. Two Manichæan Magical Texts, with an Excursus on the Parthian ending -ēndēh. *BSOAS* 12, 39–66 (= *Selected Papers* II, Acta Iranica 15, Téhéran–Liège: Brill 1977, 273–300).
- Hertel, J. 1927. *Die Sonne und Mithra im Awesta*. Auf Grund der awestischen Feuerlehre dargestellt. Leipzig: Haessel, 1927 (Indo-Iranische Quellen und Forschungen, Heft IX).
- Hettrich, H. 2007. Zur Bedeutung von vedisch *van<sup>i</sup>*. In: W. Hock & M. Meier-Brügger (eds.), *Dar sloves'ny. Festschrift für Christoph Koch zum 65. Geburtstag*. München: Verlag Otto Sagner (Specimina Philologiae Slavicae, Bd. 146), 121–134.
- Hewson, J. & V. Bubenik 2006. *From case to adposition. The development of configurational syntax in Indo-European languages*. Amsterdam & Philadelphia: Benjamins (Current Issues in Linguistic Theory 280).
- Hill, E. 2007: *Die Aorist-Präsentien des Indoiranischen*. Untersuchungen zur Morphologie und Semantik einer Präsensklasse. Bremen: Hempen (MFhS 7).
- Hintze, A. 1989. F1, E1 und drei neue Yašt-Handschriften. *MSS* 50, 31–50.
- . 1991. Remarks on the spelling conventions in F1. In: JamaspAsa 1991, XV–XX.
- . 1994. *Der Zamyād-Yašt. Edition, Übersetzung, Kommentar*. Wiesbaden: Reichert, (Beiträge zur Iranistik 15).
- . 1995. The Rise of the Saviour in the Avesta. In: Chr. Reck & P. Zieme (eds.), *Iran und Turfan*. Beiträge Berliner Wissenschaftler, Werner Sundermann zum 60. Geburtstag gewidmet. Wiesbaden: Harrassowitz, 77–97 (Iranica 2).
- . 1995a. Compositional Techniques in the Yašts of the Younger Avesta". In: Fagner et alii (eds.) 1995, 277–286.
- . 1997. Parataxis and Hypotaxis in the Avesta. In: Pirart (ed.) 1997, 51–62.
- . 1998. The Migrations of the Indo-Iranians and the Iranian Sound-Change *s > h*. In: W. Meid (ed.), *Sprache und Kultur der Indogermanen*. Akten der 10. Fachtagung der Indogermanischen Gesellschaft, Innsbruck 22–29.9.1996. Innsbruck: Institut für Sprachwissenschaft, 139–153 + 1 map. (IBS 93).

- . 1999. Kategorienwechsel und funktionale Umdeutung im Präsens und Aorist. In: Habisreitering *et al.* (eds.) 1999, 101–114.
- . 1999a. The Saviour and the Dragon in Iranian and Jewish/Christian Eschatology. In: Shaked & Netzer (eds.), 72–90.
- . 2000. *‘Lohn’ im Indoiranischen*. Eine semantische Studie des Rigveda und Avesta. Wiesbaden: Reichert (Beiträge zur Iranistik 20).
- . 2000a. Die avestische Wurzel *mad* ‘zumessen’. In: Forssman & Plath (eds.) 2000, 163–175.
- . 2001. Review of Kümmel 1996. *IJJ* 44, 269–274.
- . 2002. On the literary structure of the Older Avesta. *BSOAS* 65, 31–51.
- . 2003. When the stars rise: the Avestan expression *aīβisrūθrima- aibigaiia-*. In: Cereti, Maggi & Provasi (eds.) 2003, 143–155.
- . 2004. On the Ritual Significance of the Yasna Haptanhāiti. In: M. Stausberg (ed.), *Zoroastrian Rituals in Context*. Leiden: Brill 2004, 291–316 (Numen Book Series vol.102).
- . 2004a. *Do ut des*: Patterns of Exchange in Zoroastrianism. A Memorial Lecture for Ilya Gershevitch. Delivered at the Royal Asiatic Society on 13 June 2002. *JRAS* 14, 1–19.
- . 2005. Indo-Iranian *\*gar* ‘to raise aloft’. In: Schweiger (ed.) 2005, 247–260.
- . 2005 [2009]. The Cow that Came from the Moon. The Avestan expression *māh-gaociθra-*. In: C. Altman Bromberg, N. Sims-Williams, and U. Sims-Williams (eds.), *Iranian and Zoroastrian Studies in Honor of Prods Oktor Skjærvø*. *BAI* 19, 59–68.
- . 2007. *A Zoroastrian Liturgy: The Worship in Seven Chapters (Yasna 35–41)*. Wiesbaden: Harrassowitz (Iranica 12).
- . 2007a. Review of Sims-Williams (ed.) 2002. *IJJ* 50, 173–182.
- . 2007b. On the compositional structure of the Avestan Gāhs. In: Vahman & Pedersen (eds.) 2007, 29–43.
- . 2009. Disseminating the Mazdayasnian Religion. An Edition of the Avestan Hērbedestān Chapter 5. In: Sundermann *et al.* (eds.) 2009, 171–190.
- . 2009a. An Avestan ghost word: *auuah-* ‘water’. In: Pirart & Tremblay (eds.), 129–144.
- . 2009b. The Return of the Fravashis in the Avestan Calendar. In: D. Durkin-Meisterernst, Chr. Reck & D. Weber (eds.), *Literarische Stoffe und ihre Gestaltung in mitteliranischer Zeit*. Kolloquium anlässlich des 70. Geburtstages von Werner Sundermann. Wiesbaden: Reichert, 99–121.
- . 2012. Review of Bichlmeier 2011. *JIES* 40, 457–464.
- . 2013. Perceptions of the Yasna Haptanhāiti. In: E. Pirart (ed.) 2013, 53–73.



- . 2014. Avestan Research 1991–2014. Part 1: Sources and Phonology. *Kratylos* 59, 2014, 1–52.
- . 2014a. Monotheism the Zoroastrian Way. *JRAS* 24, 225–249.
- . 2015. Zarathustra's Time and Homeland: Linguistic Perspectives. In: Stausberg & Vevaina (eds.) 2015, 31–38.
- . 2017. The Advance of the *Daēnā*: The Vištāsp Yašt and an obscure word in the Hāδōxt Nask. In: Morano *et al.* (eds.) 2017, 165–178.
- . [forthcoming]. Proto-Indo-European *\*h<sub>1</sub>ues-* 'to be good' and Avestan *vahma-*.
- . & E. Tichy (eds.) 2000. *Anusantatyai: Festschrift für Johanna Narten zum 70. Geburtstag*. Dettelbach: Röhl.
- Hock, W. 2014. Jungavestisch *-a* versus *-ā* im Nominativ-Akkusativ Plural neutraler *a*-Stämme. In: Melchert *et al.* (eds.) 2014, 70–77.
- Hoffmann, K. 1965. Zu den altiranischen Bruchzahlen. *KZ* 79, 247–254 (= 1975, 183–190).
- . 1970. Zur avestischen Textkritik: Der Akk.Pl. mask. der *a*-Stämme. In: *Henning Memorial Volume*. London 187–200 (= 1975, 274–287).
- . 1975. *Aufsätze zur Indoiranistik*, hrsgg. von J. Narten, Bd I. Wiesbaden: Reichert.
- . 1976. *Aufsätze zur Indoiranistik*, hrsgg. von J. Narten, Bd II. Wiesbaden: Reichert.
- . 1986. Avestisch *š*. In: Schmitt & Skjærvø (eds.) 1986, 163–183 (= Hoffmann 1992, 837–857).
- . 1992. *Aufsätze zur Indoiranistik*, hrsgg. von S. Glauch, R. Plath & S. Ziegler, Bd III. Wiesbaden: Reichert.
- . & B. Forssman 2004. *Avestische Laut- und Formenlehre*. Innsbruck: Institut für Sprachwissenschaft, 1996, 2<sup>nd</sup> edition 2004 (IBS 84).
- . & J. Narten 1989. *Der Sasanidische Archetypus*. Untersuchungen zu Schreibung und Lautgestalt des Avestischen. Wiesbaden: Reichert.
- Huber, B., M. Volkart & P. Widmer (eds.) 2008. *Chomolangma, Demawend und Kasbek. Festschrift für Roland Bielmeier zu seinem 65. Geburtstag*. Halle an der Saale: International Institute for Tibetan and Buddhist Studies, 2 vols. (Beiträge zur Zentralasienforschung 12).
- Hübschmann, H. 1875. *Zur Casuslehre*. München: Theodor Ackermann.
- Humbach, H. 1952 [1956]. Yasna 31.13. *MSS* 1, 23–27.
- . 1959. *Die Gathas des Zarathustra*. 2 vols., Heidelberg: Winter.
- . 1991. *The Gāthās of Zarathushtra and the Other Old Avestan Texts*. In collaboration with J. Elfenbein and P.O. Skjærvø. Part I: Introduction – Text and Translation. Part II: Commentary. Heidelberg (Indogermanische Bibliothek: Reihe 1, Lehr- und Handbücher).
- . 2014. 'Wind', an Old Iranian Deity. *EJVS* 21:2, 5–7.

- . 2017. Zarathushtra and the Balance. In: Morano *et al.* (eds.) 2017, 179–186.
- . & K. Faiss 2010. *Zarathushtra and His Antagonists*. A Sociolinguistic Study with English and German Translations of His Gāthās. Wiesbaden: Reichert.
- . & P. Ichaporia 1998. *Zamyād Yasht*. Yasht 19 of the Younger Avesta. Text, Translation, Commentary. Wiesbaden: Harrassowitz.
- Huyse, Ph. 1990. Persisches Wortgut in Athenaios’ “Deipnosophistai”. *Glotta* 68, 93–104.
- . (ed.) 2002. *Iran: Questions et connaissances*. Actes du IV<sup>e</sup> congrès européen des études iraniennes, organisé par la Societas Iranologica Europaea, Paris, 6–10 septembre 1999. Vol. I : La période ancienne. Paris: Association pour l’avancement des études iraniennes (Cahiers de Studia Iranica 25).
- Inslar, S. 1975. *The Gāthās of Zarathustra*. Leiden: Brill (Acta Iranica 8).
- . 1996. Avestan *vāz* and Vedic *vāh*. In: H.-P. Schmidt & A. Wezler (eds.), *Veda-Vyākaraṇa-Vyākhyāna*. Festschrift Paul Thieme zum 90. Geburtstag am 18. März 1995 dargebracht von Schülern, Freunden und Kollegen. Reinbek 1996, 169–186.
- Jackson, P. 2001. A Graeco-Avestan Parallel Regarding the Adornment of the Sky with Stars. *IF* 106, 122–125.
- . 2002. *Verbis pingendis*. Contributions to the Study of Ritual Speech and Mythopoeia. Innsbruck: Institut für Sprachwissenschaft (IBS, Vorträge und Kleinere Schriften, 72).
- . 2002–2003. Allusions to the Vala-myth in Yasna 44. *Orientalia Suecana* 51–52 (Fs Utas/Gren-Eklund), 221–233.
- . 2014. A Song Worth Fifty Cows: Graeco-Indo-Iranian Variations on the Etiology of Sacrifice. *MSS* 68, 101–117.
- . 2016. The arrival of the clients: Technologies of fame and the prehistory of Orphic eschatology. *Historia Religionum* 8, 169–194.
- . & N. Oettinger 2002. Traitana und Ōraēta(o)na. Reste urindoiranischer Heldenlegenden. *IJJ* 45, 221–229.
- JamaspAsa, K.M. & F.M. Kotwal (eds.) 2010. *Hormazdyar Dastur Kayoji Mirza Birth Centenary Memorial Volume*. Udvada: Dastur Kayoji Mirza Institute.
- Jamison, S.W. 1991. A cart, an ox, and the perfect participle in Vedic. *MSS* 52, 77–100.
- . 2002. An anagram in the Gathas: Yasna 51.4–5. *JAOS* 287–289.
- . 2002a. Review of Kümmel 2000. *IJJ* 45, 350–353.
- . 2005. Linguistic Aspects of the Persona of the “Gāthā Poet”. In: Jones-Bley *et al.* (eds.) 2005, 123–132.
- . 2005 [2009]. Poetic Self-Reference in the *Rig Veda* and the Persona of Zarathustra. In: Altman Bromberg *et al.* (eds.) 2005 [2009], 69–72.

- . 2007. *The Rig Veda between Two Worlds. Le rgveda entre deux mondes*. Paris: Diffusion de Boccard (Publications de l’Institut de Civilisation Indienne, fasc. 74).
- . 2007a. Vedic *Uśana Kāvya* and Avestan *Kauii Usan*: On the Morphology of the Names. Nussbaum (ed.) 2007, 155–168.
- . 2008. Review of Remmer 2006. *JAOS* 128, 397–398.
- . 2009. Socio-linguistic Remarks on the Indo-Iranian \*-ka- Suffix: A Marker of Colloquial Register. *IJ* 52, 311–329.
- . 2009 [2013]. An Indo-Iranian Priestly Title Lurking in the Rig Veda? An Indic Equivalent to Avestan *karapan*. *BAI* 23, 111–119.
- . 2011. Avestan *xšuuīd*: A Relic of Indo-Iranian Ritual Vocabulary. *BAI* 25, 19–29.
- . & J. P. Brereton 2014. *The Rigveda: the Earliest Religious Poetry of India*. 3 vols., Oxford: OUP.
- ., H. C. Melchert & B. Vine (eds.) 2013. *Proceedings of the 24<sup>th</sup> Annual UCLA Indo-European Conference October 26<sup>th</sup> and 27<sup>th</sup>, 2012*. Bremen: Hempen
- ., H. C. Melchert & B. Vine (eds.) 2014. *Proceedings of the 25<sup>th</sup> Annual UCLA Indo-European Conference October 25<sup>th</sup> and 26<sup>th</sup>, 2013*. Bremen: Hempen.
- Janda, M. 1997. *Über “Stock und Stein”: Die indogermanischen Variationen eines universalen Phraseologismus*. Dettelbach: Röhl (MSS, Beiheft 18).
- . 1998. Die hohle und die geschlossene Hand im Urindogermanischen. *Die Sprache* 40, 1–25.
- . 2005. *Elyision. Entstehung und Entwicklung der griechischen Religion*. Innsbruck: Institut für Sprachwissenschaft (IBS 119).
- . 2005a. Wanken und Fall der Feinde Mithras: jungavestisch *vī9iṣ-* als Element indoiranischer Dichtersprache. In: Schweiger (ed.) 2005, 261–271.
- . 2006 [2008]. Die *Perī* aus dem Paradies: avestisch *pairikā-*. *Die Sprache* 46, 213–228.
- . 2006a. Review of de Vaan 2003. *Kratylos* 51, 102–115.
- . 2006b. Šabuhr I. in der schützenden Hand Gottes: Mittelpersisch *dastgerd* als iranischer und indogermanischer Phraseologismus. *IJDLL* 3, 73–90.
- . 2008. Häuser des Mondes: Ein indoiranisches Mythenfragment im avestischen Hymnus an *Tištīria-Sirius*. In: Huber *et al.* (eds.) 2008, II 483–503.
- . 2014. *Purpurnes Meer. Sprache und Kultur der homerischen Welt*. Innsbruck: Institut für Sprachwissenschaft (IBK, Neue Folge Band 7).
- Jasanoff, J. 1997. Gathic Avestan *cikōitərəš*. In: Lubotsky (ed.), 1997, 119–130.
- . 2016. Vedic *stuṣé* ‘I praise’. In: Gunkel *et al.* (eds.) 2016, 135–145.
- Jasanoff, J., H. C. Melchert, L. Olivier (eds.) 1998. *Mīr Curad*. Studies in honor of Calvert Watkins. Innsbruck: Institut für Sprachwissenschaft (IBS 92).

- Jones-Bley, K., M.E. Huld & A. Della Volpe (eds.) 2000. *Proceedings of the Eleventh Annual UCLA Indo-European Conference*, Los Angeles June 4–5, 1999. Washington D.C.: Institute for the Study of Man (JIES Monograph Series No. 35).
- Jones-Bley, K., M.E. Huld, A. Della Volpe & M. Robbins Dexter (eds.) 2005. *Proceedings of the Sixteenth Annual UCLA Indo-European Conference*, Los Angeles November 5–6, 2004. Washington D.C.: Institute for the Study of Man (JIES Monograph Series No. 50).
- de Jong, A. 1995. Jeh the primal whore? Observations on Zoroastrian misogyny. In: R. Kloppenborg & W. J. Hanegraaff (eds.), *Female stereotypes in religious traditions*. Leiden, New York & Köln: Brill, 15–41.
- Joseph, B.D. & C.S. Karnitis 2005. On the specialized semantics of *\*(s)meuk-* in Iranian. *IF* 110, 152–161.
- Jügel, Th. 2010. On the Origin of the Ergative Construction in Iranian: Evidence from Avestan. In: Macuch *et al.* (eds.) 2010, 99–114.
- . 2015. *Die Entwicklung der Ergativkonstruktion im Alt- und Mitteliranischen*. Eine korpusbasierte Untersuchung zu Kasus, Kongruenz und Satzbau. Wiesbaden: Harrassowitz (Iranica 21).
- . 2015a. Repetition analysis function (ReAF) II: Interpreting Repetitions in Avestan. *IF* 121, 1–38.
- . 2015b. Repetition analysis function (ReAF) I: Identifying textual units in Avestan. *IF* 121, 177–208.
- Katz, H. 2003. *Studien zu den älteren indoiranischen Lehnwörtern in den uralischen Sprachen* aus dem Nachlaß herausgegeben von Paul Widmer, Anna Widmer und Gerson Klumpp. Heidelberg: C. Winter.
- Katz, J. 2000. Evening Dress: The Metaphorical Background of Latin *vesper* and Greek ἑσπερος. In: Jones-Bley *et al.* (eds.) 2000, 69–93.
- Kazzazi, K. 2003. Review of Hintze 2000. *Kratylos* 48, 100–104.
- . 2008. Review of Remmer 2006. *Kratylos* 53, 85–90.
- Kellens, J. 1974. *Les noms-racines de l'Avesta*. Wiesbaden: Reichert.
- . 1974a. Saošiiant. *StIr* 3, 187–209.
- . 1976. Un prétenu présent radical. *MSS* 34, 59–71.
- . 1984. *Le verbe avestique*. Wiesbaden: Reichert.
- . 1988. Yima et la mort. In: M.A. Jazayeri & W. Winter (eds.), *Languages and Cultures. Studies in Honor of Edgar C. Polomé*. Berlin, New York & Amsterdam: Walter de Gruyter, 329–334.
- . 1991. L'avestique de 1972 à 1990. *Kratylos* 36, 1–31.
- . 1991a. Remarques sur l'opposition de nombre en vieil-avestique. In: R.E. Emmerick & D. Weber (ed.), *Corolla Iranica*. Papers in honour of Prof. Dr. David

- Neil MacKenzie on the occasion of his 65<sup>th</sup> birthday on April 8<sup>th</sup>, 1991. Frankfurt am Main/Bern/New York/Paris: Peter Lang, 101–108.
- . 1994. Retour à l’infinitif avestique. *MSS* 55, 45–59.
  - . 1994a. La fonction aurorale de Miθra et la Daēnā. In: J.R. Hinnells (ed.), *Studies in Mithraism*. Papers associated with the Mithraic Panel organized on the occasion of the XVIth Congress of the International Association for the History of Religions, Rome, July 1990. Roma: “L’Erma” di Bretschneider, 165–171.
  - . 1994b. *Le panthéon de l’Avesta ancien*. Wiesbaden: Reichert.
  - . 1995. *Liste du verbe avestique*. Avec un appendice sur l’orthographe des racines avestiques par Eric Pirart. Wiesbaden: Reichert.
  - . 1995a. L’âme entre le cadavre et le paradis. *JA* 283, 19–56.
  - . 1995b. Qui est Gōuš tašan? In: B.G. Fragner *et al.* (eds.) 1995, 347–357.
  - . 1996. Commentaire sur les premiers chapitres du Yasna. *JA* 284, 37–108.
  - . 1997. L’accusatif pluriel des thèmes en -a- en avestique. In: Lubotsky (ed.) 1997, 131–132.
  - . 1997a. Les fonctions du génitif en vieil-avestique. In: Pirart (ed.) 1997, 81–90.
  - . 1999. Le banquet sans fin. In: Habisreiter *et al.* (eds.) 1999, 115–117.
  - . 2000. L’ellipse du temps. In: Hintze & Tichy (eds.) 2000, 127–131.
  - . 2002–3. Le problème avec Anāhitā. *Orientalia Suecana* 51–52, 317–326.
  - . 2003. Le mot «aryen» ou le fantasme contre l’analyse. *Bulletin de l’Académie Royale de Belgique*, Classe des Lettres 14, 99–112.
  - . 2005. En amont du moyen-iranien: la lexicographie avestique. In: Cereti & Maggi (eds.) 2005, 41–47.
  - . 2006. Études avestiques et mazdéennes vol.1: Le *Ratauuō vīspe mazišta*: Yasna 1.1 à 7.23, avec Visprad 1 et 2. Paris: Éditions de Boccard (Persika 8).
  - . 2007. Controverses actuelles sur la composition des Gāthâs. *JA* 295, 415–438.
  - . 2007a. *Études avestiques et mazdéennes vol.2*: Le *Hōm Stōm* et la zone des déclarations (Y7.24–Y15.4, avec les intercalations Vr3 à 6). Paris: Éditions de Boccard (Persika 10).
  - . 2013. Le jour se lève à la fin de la Gāthâ Ahunauuaitī. *JA* 301, 53–84.
  - . 2013a. *Jahikā-* et le Vocabulaire Daivique. In: Choksy & Dubeansky (eds.) 2013, 123–127.
  - . & E.V. Pirart 1988–1991. *Les textes vieil-avestiques*. Vol. I: Introduction, texte et traduction. Vol. II: Répertoires grammaticaux et lexique. Vol. III: Commentaire. Wiesbaden: Reichert.
  - . & E.V. Pirart 1997. La strophe des jumeaux: stagnation, extravagance et autres méthodes d’approche. *JA* 285, 31–72.
- Keydana, G. 2016. In defense of Narten roots. *IF* 121, 271–293.

- Klein, J.S. 1985. *Toward a Discourse Grammar of the Rigveda*. Vol. I: Coordinate Conjunction. Part 1: Introduction, *ca, utá*. Heidelberg: Winter.
- . 1988. Coordinate Conjunction in Old Persian. *JAOS* 108, 387–417.
- Klein, J.S. & K. Yoshida (eds.) 2012. *Indic across the Millennia. From the Rigveda to Modern Indo-Aryan*. Proceedings of the Linguistic Section of the 14th World Sanskrit Conference, Kyoto, Japan, September 1st–5th, 2009. Bremen: Hempen Verlag.
- Klingenschmitt, G. 1968. *Farhang-i ōīm. Edition und Kommentar*. Unpubl. doctoral dissertation, Erlangen.
- . 1972. Die mittelpersischen Pronomina 'yn und h'n, neupersisch *īn* und *ān*. *MSS* 30, 93–109.
- . 2000. Mittelpersisch. In: Forssman & Plath (eds.) 2000, 191–251.
- Koivulehto, J. 2000. Finno-Ugric reflexes of North-West Indo-European and early stages of Indo-Iranian. In: Jones-Bley *et al.* (eds.) 2000, 21–43.
- . 2001. Zum frühen iranischen und indoiranischen lexikalischen Einfluss auf das Finnisch-Ugrische. In: K. Karttunen & P. Koskikallio (eds.), *Vidyārṇava-vandanam: Essays in Honour of Asko Parpola* (Studia Orientalia 94). Helsinki: Finnish Oriental Society, 359–378.
- König, G. 2007. Wer ist der *vīpta-/vaēpaiia(nt)*- des *Vidēvdād*? *AF* 34, 370–387.
- . 2010. *Geschlechtsmoral und Gleichgeschlechtlichkeit im Zoroastrismus*. Wiesbaden: Harrassowitz (Iranica 18).
- Kortlandt, F. 1991. A note on the Tocharian dual. *Tocharian and Indo-European Studies* 5, 5–10 (reprinted in: *Studies in Germanic, Indo-European and Indo-Uralic*. Amsterdam: Rodopi 2010, 155–157).
- . 2008. The Origin of the Indo-Iranian Desiderative. In: Kulikov & Rusanov (eds.) 2008, 227–230.
- Kuiper, F.B.J. 1978. Old East Iranian *\*nāmani* 'names', etc. *IJJ* 20, 83–94.
- Kulikov, L. & M. Rusanov (eds.), *Indologica*. T. Ya. Elizarenkova Memorial Volume, Book 1. Moscow: Russian State University for Humanities (Orientalia et Classica series 20).
- Kümmel, M. J. 1996. *Stativ und Passivaorist im Indoiranischen*. Göttingen (Historische Sprachforschung, Ergänzungsheft 39).
- . 2000. *Das Perfekt im Indoiranischen*. Eine Untersuchung der Form und Funktion einer ererbten Kategorie des Verbums und ihrer Weiterentwicklung in den altindoiranischen Sprachen. Wiesbaden: Reichert.
- . 2000a. Der Aorist der Wurzel(n) *ar* im Indoiranischen. In: Forssman & Plath (ed.), 253–266.
- . 2005. Vedisch *tand-* und ein neues indoiranisches Lautgesetz. In: Schweiger (ed.) 2005, 321–332.

- . 2007. Review of de Vaan 2003. *IJ* 50, 273–283.
- . 2010. Review of Heenen 2006. *IJ* 53, 179–184.
- . 2012 [2013]. The Iranian reflexes of Proto-Iranian *\*ns*. *Orientalia Suecana* 61, 138–145.
- . 2013. Zur Endung des Genitivs Plural im Indoiranischen und Indogermanischen. *IF* 118, 193–211.
- . 2014. Zum ‘proterokinetischen’ Ablaut. In: Oettinger & Steer (eds.) 2014, 164–179.
- de La Vaissière, E. & P. Riboud 2003. Les livres des Sogdiens (avec une note additionnelle par F. Grenet). *StIr* 32, 127–136.
- Lazard, G. 2005. Structures d’actances dans les langues irano-aryennes modernes. In: Weber (ed.) 2005, 81–93.
- Lipp, R. 2009. *Die indogermanischen und einzelsprachlichen Palatale im Indoiranischen*. Vol. 1: Neurekonstruktion, Nuristan-Sprachen, Genese der indoarischen Retroflexe, Indoarisch von Mitanni. Vol.2: Thorn-Problem, indoiranische Laryngalvokalisation. Heidelberg: Winter (Indogermanische Bibliothek, 3. Reihe).
- Lowe, J.J. 2011. Negated Participles in Ṛgvedic Sanskrit and Proto-Indo-European. *IJ* 54, 19–38.
- . 2014. Transitive Nominals in Old Avestan. *JAOS* 134, 553–577.
- Lubotsky, A. 1990. La loi de Brugmann et *\*Hæ-*. In: *La reconstruction des laryngales*. Liège-Paris: Société d’Edition «Les Belles Lettres», 129–136 (Bibliothèque de la Faculté de Philosophie et Lettres de l’Université de Liège, fascicule CCLIII).
- . 1994. Avestan *ǰβōrāštar-* and the Indo-European root *√turk-*. *Die Sprache* 36, 94–102.
- . (ed.) 1997. *Sound Law and Analogy*. Papers in honor of Robert S. P. Beekes on the occasion of his 60th birthday. Amsterdam-Atlanta: Rodopi (Leiden Studies in Indo-European 9).
- . 1997a. The Indo-Iranian reflexes of PIE *\*CRHUV*. In: Lubotsky (ed.) 1997, 139–154.
- . 1998. Avestan *āsitō.gātu-*. *MSS* 58, 91–94.
- . 1998a. Avestan *zruuan-*. In: T.M. Nikolaeva *et al.* (eds.), *ΠΟΛΥΤΡΟΠΟΝ. To the 70th birthday of Vladimir Toporov*. Moscow: Indrik, 73–85.
- . 1998b. Avestan *xʷarənah-*: the etymology and concept. In: Meid (ed.) 1998, 479–488.
- . 1999. Avestan compounds and the RUKI-rule. In: Eichner & Luschützky (eds.) 1999, 299–322.
- . 2001. The Indo-Iranian Substratum. In: Chr. Carpelan, A. Parpola and P. Koskikallio (eds.), *Early Contacts between Uralic and Indo-European: Linguistic*

- and Archaeological Considerations*. Papers presented at an international symposium (Tvärminne, 8–10 January, 1999). Helsinki: Suomalais-Ugrilainen Seura (Suomalais-ugrilaisen Seuran toimituksia, 242), 301–317.
- . 2002. The Indo-Iranian word for ‘shank, shin’. *JAOS* 122, 318–324.
- . 2002a. Scythian elements in Old Iranian. In: Sims-Williams (ed.) 2002, 189–202.
- . 2004. Avestan *siiāzd-*, Sanskrit *sedh-*, Latin *cēdere* ‘to flinch’. In: A. Hyllested, A.R. Jørgensen, J.H. Larsson and Th.K. Olander (eds.), *Per aspera ad asteriscos*. *Studia Indogermanica in honorem Jens Elmegård Rasmussen sexagenarii Idibus Martiis anno MMIV*. Innsbruck: Institut für Sprachwissenschaft (IBS 112), 323–332.
- . 2008. The Indo-Iranian Root *\*stig-*. In: Kulikov & Rusanov (eds.) 2008, 305–313.
- . 2012. The Old Persian month name *viyax(a)na-*, Avestan *viiāx(a)na-* ‘eloquent, bragging’ and Ossetic festivals. In: Sadovski & Stifter (eds.) 2012, 95–106.
- Lühr, R. 1994. Zur Interdependenz der Methoden ‘Funktionsbestimmung’ und ‘Rekonstruktion’ – das Infinitivmorphem indoiran. *\*-d<sup>h</sup>iāi*. *MSS* 55, 69–97.
- . 1998. Erkennen und Unterscheiden bei den Indoiraniern. In: Meid (ed.) 1998, 489–504.
- Lurje, P. B. 2010. *Personal Names in Sogdian Texts*. Wien: Österreichische Akademie der Wissenschaften (Iranisches Personennamenbuch 2.8, SbÖAW 808).
- Lundquist, J. 2014. Review of Klein & Yoshida (eds.) 2012. *JAOS* 134, 740–742.
- MacKenzie, D.N. 1971. *A Concise Pahlavi Dictionary*. London: Oxford University Press.
- Macuch, M. 2005. On Middle Persian Legal Terminology. In: Cereti & Maggi (eds.) 2005, 375–386.
- . 2012. The *adwadād* Offence in Zoroastrian Law. In: Sh. Secunda & St. Fine (eds.), *Shoshannat Yaakov. Jewish and Iranian Studies in Honor of Yaakov Elman*. Leiden & Boston: Brill (The Brill Reference Library of Judaism 35), 247–269.
- . 2012a. Editing Pahlavi Legal Texts. In: A. Cantera (ed.), *The Transmission of the Avesta*. Wiesbaden: Harrassowitz (Iranica 20), 519–540.
- . 2017. A Legal Controversy from the Sasanian Period in a Late Pahlavi Rivāyat Text. In: Morano *et al.* (eds.) 2017, 257–272.
- , M. Maggi & W. Sundermann (eds.) 2007. *Iranian languages and texts from Iran and Turan*. Ronald E. Emmerick Memorial Volume. Wiesbaden: Harrassowitz (Iranica 13).
- , D. Weber & D. Durkin-Meisterernst (eds.) 2010. *Ancient and Middle Iranian Studies: Proceedings of the 6th European Conference of Iranian Studies*, held in Vienna, 18–22 September 2007. Wiesbaden: Harrassowitz (Iranica 19).



- Mahlzahn, M. 1999 [2000]. Die nominalen Flexionsendungen des idg. Duals. *HS* 112, 204–226.
- Malandra, W.B. 2013. Anāhitā: What's in a Name? In: Choksy & Dubeansky (eds.) 2013, 105–111.
- Martínez, J. 1999. Zu einigen avestischen Wörtern mit ž. *IF* 104, 120–141.
- . 2000. Zum jungavestischen Präsensstamm *fīaṇhuua-* (?). In: Forssman & Plath (ed.), 339–347.
- Mayrhofer, M. 1979. *Iranisches Personennamenbuch*. Band I: Die altiranischen Namen. Faszikel 1: Die avestischen Namen. Wien: Verlag der österreichischen Akademie der Wissenschaften.
- . 1980. Zu iranischen Reflexen des *vṛkī-*Typus. In: J. Bingen, A. Coupey, F. Mawet (eds.), *Recherches de linguistique: Hommages à Maurice Leroy*. Brussels: Université Libre de Bruxelles, 130–152.
- . 1992–2001. *Etymologisches Wörterbuch des Altindoarischen*. 3 vols., Heidelberg: Winter.
- Mehendale, M.A. 1992. Avestan *garəd-* and *gərəzdi-*. *StII* 16/17, 147–148.
- . 2010. Upairi Kairya. In: JamaspAsa & Kotwal (eds.) 2010, 204–206.
- Meid, W. (ed.) 1998. *Sprache und Kultur der Indogermanen*. Akten der X. Fachtagung der Indogermanischen Gesellschaft, Innsbruck, 22.–28. September 1996. Innsbruck: Institut für Sprachwissenschaft.
- Meiser, G. & O. Hackstein (eds.) 2005. *Sprachkontakt und Sprachwandel*. Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.–23. September 2000, Halle an der Saale. Wiesbaden: Reichert.
- Meissner, T. 1993. Zur Etymologie von altindisch *maghávan*. *HS* 106, 42–48.
- Melchert, C., E. Rieken & Th. Steer (eds.) 2014. *Munus amicitiae. Norbert Oettinger a collegiis et amicis dicatum*. Ann Arbor & New York: Beech Stave Press.
- Milizia, P. 2012. The Etymology of the Avestan Hapax *bixəδra-* and the Exegesis of Videvdat 19.21. *IJJ* 55, 101–117.
- Miyakawa, H. 2002 [2006]. Avestisch *pañcāca*. *MSS* 62, 71–78.
- . 2002a [2006]. Das vedische Sytagma *devó devānām* ‘der Gott der Götter’ und seine avestische Parallele. *MSS* 62, 79–94.
- Morano, E., E. Provasi & A.V. Rossi (eds.) 2017. *Studia Philologica Iranica. Gherardo Gnoli Memorial Volume*. Roma: Scienze e Lettere (Serie Orientale, Nuova Serie vol.5).
- Narten, J. 1985. Zur Konstruktion von avestisch *yaz*. *MSS* 45 (= *Festgabe für Karl Hoffmann* vol. 2), 171–181 (= 1995, 297–304).
- . 1986. *Der Yasna Haptaṇhāiti*. Wiesbaden: Reichert.
- . 1995. *Kleine Schriften*. Band 1. Ed. by M. Albino and M. Fritz. Wiesbaden: Reichert.

- . 1996. Zarathustra und die Gottheiten des Alten Iran: Überlegungen zur Ahura-Theorie. *MSS* 56, 61–89.
- Nedoma, R. & D. Stifter (eds.) 2009, *\*h<sub>2</sub>ner. Festschrift für Heiner Eichner* (= *Die Sprache* 48). Wiesbaden: Harrassowitz.
- Nichols, A.G. 2016. The Iranian concept *Aša* and Greek views of the Persians. *Studi Classici e Orientali* 62, 61–86.
- Nikolaev, A. 2000. PIE Ergativity and the Genitive in *\*-osyo*. In: Jones-Bley *et al.* (eds.) 2000, 293–309.
- . 2012. Avestan *Haēcaṣpa-*, Rigveda 4.43, and the Myth of the Divine Twins. *JAOS* 132, 567–575.
- . 2012/2013. Homeric ἀάτοϝ: Etymology and Poetics. *Die Sprache* 50, 182–239.
- Nussbaum, A.J. (ed.), 2007. *Verba Docenti. Studies in Historical and Indo-European Linguistics Presented to Jay H. Jasanoff by Students, Colleagues, and Friends*. Ann Arbor.
- Oberlies, Th. 2004 [2006]. Review of Hintze 2000. *IJJ* 47, 331–339.
- Oettinger, N. 2001. Das Benennungsmotiv der iranischen Göttin *Anāhitā*. *MSS* 61, 163–167.
- . 2010. Die indogermanischen Wörter für ‚Schlange‘. In: Ronald Kim, Norbert Oettinger, Elisabeth Rieken, and Michael Weiss (eds.) *Ex Anatolia Lux*. Anatolian and Indo-European studies in honor of H. Craig Melchert on the occasion on his sixty-fifth birthday. Ann Arbor/New York: Beech Stave, 278–284.
- . 2012. Jungavestisch *Naotara-* (PN) und hethitisch *nuntaras* ‘eilends’. *IF* 117, 205–216.
- . 2013. Jungavestisches Imperfekt und frz. *passé simple*: ein typologischer Vergleich. In: Pirart (ed.) 2013, 117–121.
- . 2013a. Before Noah: Possible Relics of the Flood-Myth in Proto-Indo-Iranian and Earlier. In: Jamison *et al.* (eds.) 2013, 169–183.
- . 2016. Zu vedisch *yóni-* und avestisch „*vaðre.yaona*“. In: S. Neri, R. Schuhmann and S. Zeilfelder (eds.), »*dat ih dir it nu bi huldi gibu*« Linguistische, germanistische und indogermanistische Studien Rosemarie Lühr gewidmet. Wiesbaden: Reichert, 335–339.
- . 2016a. Zu gr. *Prometheus*, ved. *Mātariśvan*, *Vivasvant*, *Yama* und *Manu*. In: P.-A. Mumm (ed.), *Disciplina Viva*. Festschrift für Klaus Strunk anlässlich seines 85. Geburtstags am 22. August 2015 (= *IJDL* 13). München: Peniopo, 233–245.
- . & Th. Steer (eds.) 2014. *Das Nomen im Indogermanischen. Morphologie, Substantiv versus Adjektiv, Kollektivum*. Akten der Arbeitstagung der Indogermanischen Gesellschaft vom 14. bis 16. September 2011 in Erlangen. Wiesbaden: Reichert.

- Olsen, B. 2005. On Iranian dialectal diversity in Armenian. In: Meiser & Hackstein (eds.) 2005, 473–481.
- Panaino, A. 1990. *Tištrya. Part I: The Avestan Hymn to Sirius*. Roma: IsMEO (Serie Orientale Roma LXVIII,1).
- . 1992. Philologia Avestica I. *ahuraδāta-/mazdaδāta-*. *AuOr* 10, 199–209.
- . 1992 [1994]. Vd. 19,37: *Vərəθraγna- mazdaδāta-?* *MSS* 53, 155–158.
- . 1993. Philologia Avestica II. Av. *a(i)niia(/ō).tkaēša-*, *a(i)niiō.varəna-*. *East and West* 43, 11–21.
- . 1993a. Il periodo ipotetico dell’ irrealità in avestico recenziore. *Atti del Sodalizio Glottologico Milanese* 31, 124–148.
- . 1993–4. L’innologia avestica. In: *L’ inno tra rituale e letterature nel mondo antico*. Atti di un colloquio Napoli 21–24 ottobre 1991. Roma, 107–123 (*A.I.O.N.* sezione filologico-letteraria XIII).
- . 1994. Philologia Avestica IV. Av. *yaštay-/yešti-*; *yašta-*; phl. *yašt*. Quelques réflexions sur les titres des hymnes de l’Avesta. *StIr* 23, 163–185.
- . 1995–6. Uranographia Iranica II. Avestan *hapta.srū-* and *mərəzu-*: Ursa Minor and the North Pole? *Archiv für Orientforschung* 42–43, 190–207.
- . 1997a. Considerations on the ‘mixed fractions’ in Avestan. In: Pirart (ed.) 1997, 91–109.
- . 1998. “Smell”, “Good Smell”, “Stench” and “Stinking” in Avestan. Some Reflections on a Semantic Area In: R. Gyselen (ed.), *Parfumes d’Orient*. Bures-sur-Yvette, 167–176 (*Res Orientales* XI).
- . 1998a. A Daēvic Speech (Yt 19.57, 60, 63). In: N. Sims-Williams (ed.), *Proceedings of the Third European Conference of Iranian Studies*, held in Cambridge, 11<sup>th</sup> to 15<sup>th</sup> September 1995. Part 1: Ancient and Middle Iranian Studies. Wiesbaden: Reichert (Beiträge zur Iranistik 17), 71–78.
- . 2002. *The lists of names of Ahura Mazdā (Yašt I) and Vayu (Yašt XV)*. Roma: Istituto Italiano per l’Africa e l’Oriente (Serie Orientale Roma 94).
- . 2002a. Review of Humbach & Ichaporia 1998. *Kratylos* 47, 90–96.
- . 2003. Short remarks about Ohrmazd between limited and unlimited time. In: van Tongerloo (ed.) 2003, 195–200.
- . 2004. Philologia Avestica VI: the Widēwdād fragment about the millennium of Yima. In: C.G. Cereti, M. Melasecchi & F. Vajifdar (eds.), *Varia Iranica*. Roma: IsIAO, 19–33 (*Orientalia Romana* 7).
- . 2004a. A proposito di acque “navigabili” e “canalizzate”. Una nota esplicativa su avestico *nāuuaiia-*. In: *La tutela e la valorizzazione dei manufatti di interesse storico in archeologia navale*. Bologna, 274–287.
- . 2005. Yt. 8,8: *stārō kərəmā* o *stārō.kərəmā*? «Stelle infuocate» o «Stelle-verme»? In: Schweiger (ed.) 2005, 455–463.

- . 2005a. Pahlavi gwcyhl: *gōzihr* o *gawčīhr*? In: M. Bernardini & N.L. Tornesello (eds.), *Scritti in onore di Giovanni M. D’Erme*. Napoli: Università degli Studi di Napoli “L’Orientale”, 795–826.
- . 2007. About *spəntō.təma-* and *spəništa-*. A few remarks on the concept of *mainiiu-*. In: Vahman & Pedersen (eds.) 2007, 85–100.
- . 2009. Avestan *daxšta-* and *ciθra-*. I: The Semantic Field: Female *Germen* and Menstruation. In: Pirart & Tremblay (eds.), 197–220.
- . 2012. Av. *mainiiu.tāšta-* and other *mainiiu-* compounds. In: Sadovski & Stifter (eds.) 2012, 169–184.
- . 2013. Echi di protesta. Intorno ad av. rec. *asrāuuaiiaṭgāθā-*. In: Pirart (ed.) 2013, 123–134.
- . 2013a. The “Gift” of the “Givers”. In: Choksy & Dubeansky (eds.) 2013, 137–145.
- . 2015. The vision of Ahura Mazdā’s poet. Notes on Y. 31,5. In: M.S. Pelevin (ed.), «*Na pastbišče mysli blagoy*». *Sbornik statey k yubileyu I. M. Steblin-Kamenskogo*. Saint Petersburg: Kontrast, 47–62.
- . 2015a. *El sueño de la razón produce monstruos*. Lights and Shadows in Av. *xʷafna-* “sleep/dream”. In: Cantera & Ferrer-Losilla (eds.) 2015, 163–189.
- . 2016. Later Avestan *mayauua-* (?) and the (Mis)Adventures of a ‘Pseudo-Ascetic’. In: Redard (ed.) 2016, 167–186.
- . 2016a. Additional Considerations about Ved. *Sīndhu-*, Av. *Hiṇḍu-/Həṇḍu*. In: S. Pellò (ed.), *Borders. Itineraries on the Edges of Iran*. Venezia: Edizioni Ca’ Foscari (Eurasistica. Quaderni di studi su Balcani, Anatolia, Iran, Caucaso e Asia Centrale 5), 41–52.
- . 2017. The End of the Yasna between Philological and Theological Problems. *Dabir* 1, 72–85.
- . & A. Piras (eds.) 2006. *Proceedings of the 5<sup>th</sup> Conference of the Societas Iranologica Europaea held in Ravenna, 6–11 October 2003*. Vol. I: Ancient & Middle Iranian Studies. Milano: Mimesis.
- Pinault, G.-J. 1998. Le nom indo-iranien de l’hôte. In: Meid (ed.) 1998, 451–477.
- . 2001. Védique *tanū-* et la notion de personne en indo-iranien. *BSL* 96, 181–206.
- . 2012. Aspects of Vedic Semantics and Etymology: *vedhás-* and *védi-*. In: Klein & Yoshida (eds.) 2012, 113–134.
- . 2015. Genèse de l’optatif indo-européen. *BSL* 110, 149–204.
- . 2016. Increase in flourishing: Vedic *púraṇdhi-*, Av. *parəṇdi-*. *HS* 129, 83–107.
- Pirart, E. V. 1992 *Kayān Yasn* (Yasht 19.9–96). L’origine avestique des dynasties mythiques d’Iran. Barcelona (Aula Orientalis, Supplementa 2).
- . 1993. Avestique *janiiaoš*. *IIJ* 36, 337–340.

- (ed.) 1997. *Syntaxe des langues indo-iraniennes anciennes*. Colloque international – Sitges (Barcelona), 4–5 mai 1993. Sabadell: AUSA (Aula Orientalis – Supplementa 6).
- 1997a. Avestique *hīm*. In: Pirart (ed.) 1997, 143–160.
- 1997b. Avestique *yašta*. *JA* 285, 363–379.
- 1997c. Subordinadas avésticas desconocidas. In: Crespo & García-Ramón (eds.) 1997, 501–526.
- 1997d. Le sacrifice humain dans l’Avesta. *JA* 285, 1–36.
- 2000. Anomalies grammaticales en avestique. *JA* 288, 369–409.
- 2002. Commentaire sur le Haftān Yašt. *JA* 290, 19–30.
- 2002a. Estudio sobre el Hordād Yašt. *Boletín de la Asociación Española de orientalistas* 38, 209–222.
- 2003. Les parties étiologiques de l’Ardvīsūr Bānūg Yašt et les noms de la grande déesse iranienne. *IJ* 46, 199–222.
- 2003a. L’Ardvahišt Yašt. Présentation, traduction, commentaire et notes. *JA* 291, 97–136.
- 2003b. Le gendre de Tvaṣṭṛ et la conception indo-iranienne du temps. In V. Pirenne-Delforge & Ö. Tunca (eds.), *Représentations du temps dans les religions*. Actes du Colloque organisé par le Centre d’Histoire des Religions de l’Université de Liège. Genève: Librairie Droz, 551–559.
- 2006. *Guerriers d’Iran*. Traductions annotées des textes avestiques du culte zoroastrien rendu aux dieux Tištrya, Miθra et Vərəθraṇa. Paris: L’Harmattan.
- 2012. *Corps et âmes du mazdéen*. Le lexique zoroastrien de l’eschatologie individuelle. Paris: L’Harmattan.
- (ed.) 2013. *Le sort des Gāthās et autres études iraniennes in memoriam Jacques Duchesne-Guillemin*. Leuven – Paris – Walpole, MA: Peeters (Acta Iranica 54).
- (ed.) 2016. *Études de linguistique iranienne in memoriam Xavier Tremblay*. Leuven – Paris – Bristol, CT: Peeters (Acta Iranica 57).
- & X. Tremblay (eds.) 2009. *Zarathushtra entre l’Inde et l’Iran*. Études indo-iraniennes et indo-européennes offertes à Jean Kellens à l’occasion de son 65<sup>e</sup> anniversaire. Wiesbaden: Reichert (Beiträge zur Iranistik 30).
- Piras, A. 1996. *āsna.xratu-*: Innate or Rising Wisdom? *East and West* 46, 9–19.
- 1998. Visio Avestica I. Prolegomena à l’étude des processus visuels dans l’Iran ancien. *StIr* 27, 163–185.
- 2000. *Hādōxt Nask 2*. Il racconto zoroastriano della sorte dell’ anima. Edizione critica del testo avestico e pahlavi, traduzione e commento. Roma: Istituto Italiano per l’Africa e l’Oriente (SOR 88).
- 2003. Daēnā with White Arms. In: Cereti & Vajifdar (eds.) 2003, 345–351.

- Plath, R. 2006. Das avestische Adverb *fraorə* und seine sprachgeschichtliche Einbettung. In: Eichner *et al.* (eds.) 2006, 127–140.
- Pooth, R.A. 2000. Stativ vs. Medium im Vedischen und Avestischen. *HS* 113, 88–116.
- . 2001. Studien zur frühindogermanischen Morphologie I “Stativ”, “Medium” und “Perfekt”. *HS* 114, 220–258.
- Pronk, T. 2009. Sanskrit (*v*)*ṛṣabhá-*, Greek ἄρσῃν, ἔρσῃν: the spraying bull of Indo-European? *HS* 122, 170–181.
- Raffaelli, E.G. 2014. *The Sīh-rōzag in Zoroastrianism*. A Textual and Historico-Religious Analysis. London and New York: Routledge (Iranian Studies 20).
- Ramharter, H. 2012. Gebetene und ungebetene Gäste: Zur Etymologie des indoiran. ‘Gast’-Wortes (ved. *átit<sup>hi</sup>-*, av. *asti-*) und von westidg. *\*ghósti*. In: Sadovski & Stifter (eds.) 2012, 269–290.
- Rau, J. 1998. PIE *\*woidu-/weidu-* and its derivatives. *Die Sprache* 40, 133–160.
- . 2007. The Origin of Indic and Iranian Feminines in *-ānī<sup>d</sup>*. *JAOS* 127, 57–66.
- . 2007a. YAv. *haosrauuah-* and *dəuš.srauuah-*. *HS* 120, 159–168.
- . 2009. *Indo-European Nominal Morphology: The Decads and the Caland System*. Innsbruck: Institut für Sprachwissenschaft (IBS 132).
- . 2012. Notes on Stative Verbal Roots, the Caland System, and Primary Verbal Morphology in Indo-Iranian and Indo-European. In: Cooper *et al.* (eds.) 2012, 255–273.
- . 2014. The History of the Indo-European Primary Comparative. In: Oettinger & Steer (eds.) 2014, 327–341.
- Razmjou, Sh. 2001. Des traces de la déesse Spenta Armaiti à Persépolis. Et proposition pour une nouvelle lecture d’un logogramme élamite. *StIr* 30, 7–15.
- Redard, C. 2012. L’oiseau *Karšiptar* (V 2.42). In: Azarnouche & Redard (eds.) 2012, 193–205.
- . (ed.) 2016. *Des contrées avestiques à Mahabad, Via Bisotun*. Études offertes en hommage à Pierre Lecoq. Paris: Recherches et Publications (Civilisations Du Proche-Orient Série III. Religion et Culture 2).
- Reichelt, H. 1909. *Awestisches Elementarbuch*. Heidelberg: Winter.
- Remmer, U. 2006. *Frauenamen im Rigveda und im Avesta*. Studien zur Onomastik des ältesten Indischen und Iranischen. Wien: Verlag der Österreichischen Akademie der Wissenschaften (SbÖAW 745, Iranische Onomastik 3).
- . 2010 [2011]. Die vedischen Maskulina mit *devī*-Flexion und die *ī*-Motion in avestischen Frauenamen. *HS* 123, 157–166.
- . 2011. The Avestan paradigm of *vaiiu-* ‘air, wind’ in the context of irregular accusative singular forms of vowel stems with *°qm* and *°am*. *IJ* 54, 1–18.

- . 2012. “Wie erfreulich!” *Kamadyū*, Καμβύσης und die indoiranische Präfigierung \*ka(m)-. In: Sadovski & Stifter (eds.) 2012, 311–330.
- Rezania, K. 2010. *Die zoroastrische Zeitvorstellung*. Eine Untersuchung über Zeit- und Ewigkeitskonzepte und die Frage des Zurvanismus. Wiesbaden: Harrassowitz (Göttinger Orientforschungen, Iranica, N.F. 7).
- . 2010a. Von der altiranischen Dichtung zur Yasna-Liturgie. Über die Kanonisierung der liturgischen avestischen Texte im Zoroastrismus. *Zeitschrift für Religionswissenschaft* 18, 199–228.
- . 2014. Das Zentrum und sein Kreis, Ahura Mazdā und sein Kosmos. Die rituellen und zeitlichen Homöomorphismen eines topologischen Modells. In: K. Rezania (ed.), *Raumkonzeptionen in antiken Religionen*. Beiträge des internationalen Symposiums in Göttingen, 28. und 29. Juni 2012. Wiesbaden: Harrassowitz, 211–243 (Philippika 69).
- Rix, H. et al. 2001. *Lexikon der indogermanischen Verben*. Die Wurzeln und ihre Primärstammbildungen. 2<sup>nd</sup> edition, Wiesbaden: Reichert; online *Addenda und Corrigenda zu LIV<sup>2</sup>* <http://www.martinkuemmel.de/liv2add.html>
- Sadovski, V. 2001. Bahuvrīhis und Rektionskomposita im Ṛgveda und Avesta: Reinterpretationen ursprünglicher Entheos-Komposita als Ausgangspunkt für die Herausbildung neuer präpositionaler Rektionskomposita. Thematisches Hinterglied. In: St. Wild & H. Schild (eds.), *Norm und Abweichung*. Akten des 27. Deutschen Orientalistentags, Bonn, 28.09.-02.10.1998. Würzburg: Ergon, 101–120 (Kultur, Recht und Politik in muslimischen Gesellschaften, 1).
- . 2004. Indoiranische Komposita und freie Syntagmata mit prädikativischem bzw. partitivischem Attributionsverhältnis der Elemente. In: J. Clackson & B.A. Olsen (eds.), *Indo-European Word Formation*. Proceedings of the Conference held at the University of Copenhagen October 20<sup>th</sup>–22<sup>nd</sup>, 2000. Copenhagen: Museum Tusculanum Press, 295–334.
- . 2005. Dichtersprachliche Stilmittel im Altiranischen und Altindischen. In: Schweiger (ed.) 2005, 521–540.
- . 2006. On Morphological Structures in the System of Personal Names. Morphology and Semantics of Names and Epithets in Indo-Iranian, I. In: Panaino & Piras (eds.) 2006, 541–555.
- . 2007. Epitheta und Götternamen im älteren Indo-Iranischen. Die hymnischen Namenkataloge im Veda und im Avesta (Stilistica Indo-Iranica, I). In: A. Panaino & V. Sadovski, *Disputationes Iranologicae Vindobonenses*, I. Wien: ÖAW (SbÖAW 764), 37–74.
- . 2008. Syntax und Formulierungsstil in der indo-iranischen Dichtersprache: Einleitendes zum Periodenbau und einigen *figurae per ordinem* im Avesta und Veda. In: M. Ritter, R. Kauz & B. Hoffmann (eds.), *Iranisch und iranisch geprägte Kul-*

- turen. *Studien zum 65. Geburtstag von Bert G. Fragner*. Wiesbaden: Reichert, 242–255 (Beiträge zur Iranistik 27).
- . 2009. Ritual Formulae and Ritual Pragmatics in Veda and Avesta. In: Nedoma & Stifter (eds.) 2009 (= *Die Sprache* 48), 255–265.
- . 2009a. On Horses and Chariots in Ancient Indian and Iranian Personal Names. In: B. Fragner, R. Kauz, R. Ptak & A. Schottenhammer (eds.), *Pferde in Asien: Geschichte, Handel und Kultur/Horses in Asia: History, Trade and Culture*. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 113–129.
- . 2012. Structure and Contents of Lists and Catalogues in Indo-Iranian Traditions of Oral Poetry (Speech and Performance in Veda and Avesta, II). In: Klein & Yoshida (eds.) 2012, 153–192.
- . 2012a. Ritual Spells and Practical Magic for Benediction and Malediction: from India to Greece, Rome, and Beyond (Speech and Performance in Veda and Avesta, I.). In: Sadovski & Stifter (eds.) 2012, 331–350.
- . 2013. Zur Morphologie und Semantik von Namen und Epitheta im Indo-Iranischen. In: V. Sadovski & A. Panaino, *Disputationes Iranologicae Vindobonenses*, II. Wien: ÖAW (SbÖAW 845), 7–45.
- . & D. Stifter (eds.) 2012. *Iranistische und indogermanistische Beiträge in Memoriam Jochem Schindler (1944–1994)*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Scarlata, S. 1999. *Die Wurzelkomposita im R̥gveda*. Wiesbaden: Reichert.
- Schaefer, Chr. 1994. *Das Intensivum im Vedischen*. Göttingen: Vandenhoeck & Ruprecht (Historische Sprachforschung, Ergänzungsheft 37).
- Schaffner, S. 1993 [1994]. Die Wurzel *bhr̥-* im Iranischen. *MSS* 54, 229–240.
- Scharfe, H. 2014. Yama's Path in the R̥gveda and the Avesta. In: Jamison *et al.* (eds.) 2014,
- Schindler, J. 1972. *Das Wurzelnomen im Arischen und Griechischen*. Typewritten PhD diss. Würzburg.
- . 1975. Zum Ablaut der neutralen *s*-Stämme des Indogermanischen. In: H. Rix (ed.), *Flexion und Wortbildung*. Akten der V. Fachtagung der Indogermanischen Gesellschaft, Regensburg 9.–14. September 1973. Wiesbaden: Reichert, 259–267.
- Schlerath, B. 1991 [1992]. Das wahre Wort: Zarathustras Preishymnen an Ahura Mazda. *Jahrbuch der Berliner Wissenschaftlichen Gesellschaft*, 231–238.
- Schmidt, H.P. 1991. Gathic *maga* and Vedic *maghá*. In: K.R. Cama *Oriental Institute International Congress Proceedings*, 5th–8th January 1989. Bombay: K.R. Cama Oriental Institute and Library, 220–239.
- Schmidt, M.G. & W. Bisang (eds.) 2001. *Philologica et Linguistica. Historia Pluralitas, Universitas*. Festschrift für Helmut Humbach zum 80. Geburtstag am 4. Dezember 2001. Trier: Wissenschaftlicher Verlag,



- Schmitt, R. 1968. Die avestischen Adjektivstämme aus *-anč-*. In: J.C. Heesterman, G.H. Schokker & V.I. Subramoniam (eds.), *Pratidānam: Indian, Iranian and Indo-European studies presented to Franciscus Bernardus Jacobus Kuiper on his sixtieth birthday*. The Hague & Paris: Mouton, 134–141.
- . 1994. Die Zählreihe zwischen „10“ und „20“, zum Beispiel im Iranischen. *HS* 107, 12–29.
- . 1995. Iranische Namen. In: E. Eichler, G. Hilty, H. Löffler, H. Steger & L. Zgusta (eds.), *Namenforschung. Ein internationales Handbuch zur Onomastik*. 1. Teilband, Berlin & New York: de Gruyter, 678–690.
- . 1999. Avestisch *apāuuaiia-*. *IJJ* 42, 47–48.
- . 1999a. Zur Bedeutung von altpers. */dahyu-/*. In: Anreiter & Jerem (eds.) 1999, 443–452.
- . 2000. *Selected Onomastic Writings*. Ed. by W. Breidbach & Ph. Huyse. New York: Bibliotheca Persica Press.
- . 2001. Der Name *Arachosien*. Ein Streifzug durch seine Überlieferung in Ost und West. In: Schmidt & Bisang (eds.) 2001, 68–92.
- . 2003. Onomastische Bemerkungen zu der Namenliste des *Fravardīn Yašt*. In: Cereti, Maggi & Provasi (eds.) 2003, 363–374.
- . 2006. Modernisierung ererbter Personennamen im Altiranischen. Von ‘primären’ *\*kleues-* zu ‘sekundären’ *\*farnah-*-Bildungen. In: R. Bombi, G. Cifoletti, F. Fusco, L. Innocente & V. Orioles (eds.), *Studi linguistici in onore di Roberto Gusmani*. Alessandria: Edizioni dell’ Orso, vol. III 1559–1568.
- . 2007. Review of Brust 2005. *Kratylos* 52, 76–86.
- . 2011. Herodot und iranische Sprachen. In: R. Rollinger, B. Truschnegg & R. Bichler (eds.), *Herodot und das Persische Weltreich/ Herodotus and the Persian Empire*. Akten des 3. Internationalen Kolloquiums zum Thema “Vorderasien im Spannungsfeld klassischer und altorientalischer Überlieferungen”, Innsbruck, 24. – 28. November 2008. Wiesbaden: Harrassowitz, 313–341.
- . 2012. Minima onomastica Iranica. In: Sadovski & Stifter (eds.) 2012, 361–370.
- . 2012a. Review of West 2011. *Kratylos* 57, 161–170.
- . 2016. Review of Jügel 2015. *IJJ* 59, 201–207.
- . & P.O. Skjærvø (eds.) 1986, *Studia Grammatica Iranica. Festschrift für Helmut Humbach*. München: Kitzinger (MSS Beiheft 13).
- Schneider, C. 2010. *Die maskulinen Stämme auf -man- und -iman- im Altindischen*. Wortbildung, Funktion und indogermanische Grundlagen. Hamburg: Verlag Dr. Kovač (Philologia. Sprachwissenschaftliche Forschungen, Band 152).
- . 2011 [2012]. Syntax und Wortarten der Lokalpartikeln des R̥gveda. Teil XV.1: *sácā, sahā*. *IJDLL* 8, 117–160.

- Schwartz, M. 1998. The ties that bind: on the form and content of Zarathustra's mysticism. In: F. Vajifdar (ed.), *New approaches to the interpretation of the Gāthās*. Proceedings of the First Gāthā Colloquium, W.Z.O., Croydon, 1993. London, 127–97.
- . 2000. Revelations, Theology, and Poetics in the Gathas. *BAI* 14, 1–18.
- . 2002 [2006]. How Zarathushtra Generated the Gathic Corpus: Inner-textual and Intertextual Composition. *BAI* 16, 53–64.
- . 2003. Gathic Compositional History, Y 29, and Bovine Symbolism. In: Adhami (ed.), 2003, 195–249.
- . 2003a. Encryptions in the Gathas: Zarathushtra's variations on the theme of bliss. In: Cereti, Maggi & Provasi (eds.) 2003, 375–390.
- . 2006. The Gathas and Other Old Avestan Poetry. In: G.-J. Pinault & D. Petit (eds.), *La Langue poétique indoeuropéenne*. Actes du Colloque de travail de la Société des Études Indo-européennes (Indogermanische Gesellschaft/Society for Indo-European Studies). Leuven–Paris: Peeters, 459–497.
- . 2006a. On Haoma, and its Liturgy in the Gathas. In: Panaino & Piras (eds.) 2006, 215–224.
- . 2006b. The hymn to Haoma in Gathic transformation: Traces of Iranian poetry before Zarathushtra. In: A. Panaino (ed.), *The Scholarly Contribution of Ilya Gershevitch to the Development of Iranian Studies*. International Seminar 11<sup>th</sup> April 2003, Ravenna. With the contribution of Sara Circassia. Milano: Mimesis, 85–106.
- . 2008 [2012]. On *Aiiehiia*, Afflictress of Childbirth, and *Pairikā*: Two Avestan Demonesses (with and Appendix on the Indo-Iranian Shipwrecked Seaman). *BAI* 22, 95–103.
- . 2010. Lexical Cruces of Yasna 29 and the Serial Cross-Textual Composition of the Gathas. In: Macuch *et al.* (eds.) 2010, 219–224.
- . 2010a. On Rashnu's scales and the Chinvant's bridge, with etymological appendices. *Studia Asiatica* 11, 99–103.
- . 2013. Avestan *kauui-* and the Vocabulary of Indo-Iranian Institutions. In: Choksy & Dubeansky (eds.) 2013, 63–73.
- . 2014. Gathic Composition and Lexicology. *Iran Nameh* 29 no.2, A Special Issue Honoring Jaleh Amouzegar, 22–28.
- . 2015. On an Achaemenian and Sasanian Position *\*grastapati-*, Old Avestan *grāhma-*, and Proto-Indo-European *√ghres\**. *Arta.Achemenet Septembre 2015*, 1–8.
- . 2017. An Achaemenid Position, and Gathic Composition: OPers. *\*grasta-(pati)-*, OAv. *grāhma-*, and PIE *√ghres*. In: Morano *et al.* (eds.) 2017, 427–433.

- Schweiger, G. 2005 (ed.). *Indogermanica. Festschrift Gert Klingenschmitt*. Indische, iranische und indogermanische Studien dem verehrten Jubilar dargebracht zu seinem fünfundsechzigsten Geburtstag. Tübingen: Schweiger Verlag für Wissenschaft und Technik (Studien zur Iranistik und Indogermanistik 3).
- Shaked, Sh. & A. Netzer (eds.) 1999. *Irano-Judaica IV*. Studies relating to Jewish contacts with Persian culture throughout the ages. Jerusalem: Ben Zvi Institute.
- Sims-Williams, N. 1979. On the Plural and Dual in Sogdian. *BSOAS* 42, 337–346.
- . 1989. New Studies on the Verbal System of Old and Middle Iranian. *BSOAS* 52, 255–264.
- . 1996. On the historic present and injunctive in Sogdian and Choresmian. *MSS* 56, 173–189.
- . 1997. The denominal suffix *-ant-* and the formation of the Khotanese transitive perfect. In: Lubotsky (ed.) 1997, 317–325.
- . 1997a. *New Light on Ancient Afghanistan*. The Decipherment of Bactrian. London: SOAS.
- . 2001. Avestan *suṣrā-*, Turkish *süvre*. In: L. Bazin/P. Zieme (ed.), *De Dunhuang a Istanbul. Hommage à James Russell Hamilton*. *Silk Road Studies* 5, 329–338.
- . 2001a. The Sogdian Ancient Letter II. In: Schmidt & Bisang (eds.) 2001, 267–280.
- . 2001b. Middle Persian *padisāy* and Old Persian *vašnā*. In: A.A. Sadeghi (ed.), *Tafazzoli Memorial Volume*. Tehran: Sokhan Publishing.
- . 2002 (ed.). *Indo-Iranian languages and peoples (Centennial Bailey)*. Oxford: OUP (Proceedings of the British Academy 116).
- . 2007. *Bactrian Documents from Northern Afghanistan*. Vol. II: Letters and Buddhist Texts. London: Nour Foundation (Studies in the Khalili Collection, vol. III).
- . 2009. Avestan *fradaθāi*, Bactrian *φapo*, and their cognates. In: Pirart & Tremblay (eds.) 2009, 279–287.
- . 2010. *Bactrian Personal Names*. Wien: Österreichische Akademie der Wissenschaften (Iranisches Personennamenbuch 2.7, SbÖAW 806).
- . 2016. Iranian Cognates of Vedic *śásvant-* and *-śás*. In: Gunkel *et al.* (eds.) 2016, 399–405.
- . 2016a. Bactria — Balkh: variations on a place name. In: Pirart (ed.) 2016, 273–281.
- . & J. Cribb 1995–6. A new Bactrian inscription of Kanishka the Great. *Silk Road Art and Archaeology* 4, 75–142.
- . & D. Durkin-Meisterernst 2012. *Dictionary of Manichaean Sogdian and Bactrian*. Turnhout, Belgium: Brepols (Corpus Fontium Manichaeorum 3.2).
- . & E. Tucker 2005. Avestan *huuōišta-* and its cognates. In: Schweiger (ed.) 2005, 587–604.

- Skalmowski, W. 1991. Avestan *tanu.pərəθa-*. In: L. Isebaert (ed.), *Studia etymologica indoeuropaea memoriae A. J. Van Windekens dicata*. Leuven: Peeters, 273–280 (Orientalia Lovaniensia Analecta, 45).
- Skjærvø, P.O. 1996. Zarathustra in the Avesta and in Manicheism. Irano-Manichaica IV. With a contribution by Peter Zieme. In: *La Persia e l'Asia Centrale da Alessandro al X Secolo*. Convegno internazionale, in collaborazione con l'Istituto Italiano per il Medio ed Estremo Oriente, Roma 9–12 novembre 1994. Roma: Accademia Nazionale dei Lincei (Atti dei Convegni Lincei 127), 597–628.
- . 1997. The State of Old Avestan Scholarship. *JAOS* 117, 103–114.
- . 1997a. Avestica I: A Perfect Participle: *vaoxuuāñhō*. *JAOS* 117, 145–147.
- . 1997b. Review of Hintze 1994. *JAOS* 117, 610–612.
- . 1997c. Avestica II. Yokes and spades and remnants of the “Tripartite Ideology”. *MSS* 57, 115–128.
- . 1997d. Eastern Iranian Epic Traditions III: Zarathustra and Diomedes – an Indo-European Epic Warrior Type. *BAI* 11, 175–182.
- . 1998. Review of J. Kellens, *Liste du verbe avestique*. Wiesbaden 1995. *Kratylos* 43, 190–191.
- . 1999. Avestan Quotations in Old Persian? Literary Sources of the Old Persian Inscriptions. In: S. Shaked & A. Netzer (eds.), *Irano-Judaica* IV. Studies relating to Jewish contacts with Persian culture throughout the ages. Jerusalem: Ben Zvi Institute, 1–64.
- . 1999 [2002]. Review of Humbach & Ichaporia 1998. *BAI* 13, 182–190.
- . 2001. Rivals and Bad Poets: The Poet's Complaint in the Old Avesta. In: Schmidt & Bisang (eds.) 2001, 351–376.
- . 2002. Praise and Blame in the Avesta. The Poet-Sacrificer and His Duties. In: *Studies in Honour of Shaul Shaked* (= *Jerusalem Studies in Arabic and Islam* 26), Jerusalem: Institute of Asian and African Studies, 29–67.
- . 2002a. Ahura Mazda and Armaiti, Heaven and Earth, in the Old Avesta. *JAOS* 122, 399–410.
- . 2003. Zarathustra: First Poet-Sacrificer. In: Adhami (ed.) 2003, 157–194.
- . 2003a. Truth and Deception in Ancient Iran. In: Cereti & Vajifdar (eds.) 2003, 383–434.
- . 2003–4. The Antiquity of Old Avestan. *Nāme-ye Irān Bāstān*. The International Journal of Ancient Iranian Studies 3, 15–41.
- . Smashing Urine: On Yasna 48.10. In: M. Stausberg (ed.), *Zoroastrian Rituals in Context*. Leiden: Brill, 2004, 253–281.
- . 2005. Avestica III. Notes on the Avestan Locative Singular. In: Weber (ed.) 2005, 177–206.

- . 2005a. Poetic and Cosmic Weaving in Ancient Iran. Reflections on Avestan *vahma* and Yasna 34.2. In: D. Haug & E. Welo (eds.), *Haptačahaptāitiš. Festschrift for Fridrik Thordarson*. Oslo: Novus, 267–279.
- . 2005b. The Achaemenids and the Avesta. In: V. Sarkhosh Curtis & S. Stewart (eds.), *Birth of the Persian Empire*. London and New York: I.B. Tauris, 52–84 (The Idea of Iran, Vol.1).
- . 2005–6. The Importance of Orality for the Study of Old Iranian Literature and Myth. *Nāme-ye Irān Bāstān. The International Journal of Ancient Iranian Studies* 5, 1–23.
- . 2006 [2007]. The Avestan Yasna: Ritual and Myth. In: C. V. Pedersen & F. Vahman (eds.), *Religious Texts in Iranian Languages. Symposium Held in Copenhagen May 2002*. Copenhagen: Det Kongelige Danske Videnskabernes Selskab, 57–84.
- . 2007. Avestica V. The Thematic Optative 3rd Plural in *-aiiaēn* and the Instrumental Plural of *n*-stems and Some Other Consonant Stems. In: Nussbaum (ed.) 2007, 321–328.
- . 2008. Tahādī. Gifts and Counter-Gifts in the Ancient Zoroastrian Ritual. In: B. Gruendler & M. Cooperson (eds.), *Classical Arabic Humanities in Their Own Terms*. Festschrift for Wolfhart Heinrichs on his 65th Birthday Presented by his Students and Colleagues. Leiden & Boston: Brill, 493–520.
- . 2009. Old Iranian. In: G. Windfuhr (ed.) 2009, 43–195.
- . 2011. Review: R. Schmitt, *Die altpersischen Inschriften der Achaimeniden. Editio minor mit deutscher Übersetzung*. Wiesbaden: Reichert 2009. *OLZ* 106, 325–328.
- . 2011a. Zoroastrian Dualism. In: A. Lange, E.M. Meyer, B.A. Reynolds III, R. Styers (eds.), *Light Against Darkness. Dualism in Ancient Mediterranean Religion and the Contemporary World*. Göttingen: Vandenhoeck & Ruprecht, 55–91.
- . 2011b. *The Spirit of Zoroastrianism*. New Haven and London: Yale University Press.
- . 2012. Avestan Society. In: T. Daryaei (ed.), *The Oxford Handbook of Iranian History*. Oxford: OUP, 57–119.
- . 2013. Anāhitā: Unblemished or Unattached? (Avestica IV). In: Choksy & Dubeansky (eds.) 2013, 113–121.
- . 2013a. Zoroastrianism. In: M. R. Salzman & M. A. Sweeney (eds.), *The Cambridge History of Religions in the Ancient World*. Vol. 1: *From the Bronze Age to the Hellenistic Age*. Cambridge: CUP, 102–128.
- . [forthcoming 2018]. The Optative in Pahlavi. *BAI* 27.
- Sköld, T. 2002. Finnisch *naaras*, ein indoiranisches Lehnwort. In: Blokland & Hasselblatt (eds.) 2002, 350–352.

- Slade, B. 2008 [2010]. How (exactly) to slay a dragon in Indo-European? PIE *\*b<sup>h</sup>eid-* {*h<sub>3</sub>ég<sup>w</sup>him*, *k<sup>w</sup>ími-*}. *HS* 121, 3–53.
- . 2009. Split serpents and bitter blades. Reconstructing details of the PIE dragon-combat. *Studies in the Linguistic Sciences: Illinois Working Papers* 1–57.
- Sommer, F. 2012. Etymologie und mythische Funktion: Zu Trita Āptya. *MSS* 66/2, 247–276.
- . 2013–4. Satztopographie und Skopuseffekte bei konverbalen Strukturen im Jungavestischen. *MSS* 67, 177–196.
- . 2014. Schwarze Magie im Indoiranischen und ihr indogermanischer Hintergrund: altindisch *yātú-* und jungavestisch *yātu-*. In: Melchert *et al.* (eds.) 2014, 315–330.
- . 2014a. Avestisch *viš*. In: Oettinger & Steer (eds.) 2014, 384–396.
- Spiegel, F. 1882. *Vergleichende Grammatik der Altérânischen Sprachen*. Leipzig: W. Engelmann.
- Stausberg, M. & Y.S.D. Vevaina (eds.) 2015. *The Wiley Blackwell Companion to Zoroastrianism*. With the assistance of Anna Tessmann. Oxford: OUP.
- Steer, Th. 2013. Uridg. *\*d<sup>h</sup>(e)ǵ<sup>h</sup>ōm* ‘Erde’ und *\*ǵ<sup>h</sup>(e)ǵōm* ‘Winter’. Eine kurze Revision der Stammbildung. *IF* 118, 55–92.
- . 2013–4. Die Entstehung der indogermanischen Nasal-Infix-Präsentien. *MSS* 67, 197–222.
- . 2015. On the Origin of the Proto-Indo-European Local Adjectives in *\*-mnó-*. *HS* 128, 205–235.
- Strunk, K. 1994. Relative Chronology and Indo-European Verb-Systems: The Case of Present- and Aorist-Stems. *JIES* 22, 417–434.
- . 1999. “(Ver)weilen” und “übernachten”. In: Habisreiter *et al.* (eds.) 1999, 271–279.
- Stüber, K. 1997. Urindogermanisch *\*h<sub>1</sub>nóm-n̥* ‘Name’, *\*h<sub>2</sub>óng<sup>u</sup>-n̥* ‘Salbe’ und der Ablaut der neutralen *n*-Stämme. *Die Sprache* 39, 74–88.
- . 1998. *The Historical Morphology of n-Stems in Celtic*. Maynooth: National University of Ireland (Maynooth Studies in Celtic Linguistics Vol. 3).
- . 2000. Zu Bedeutung und Etymologie von altindisch *sáras-*, iranisch *\*harah-* und griechisch *ἔλαος*. *HS* 113, 132–142.
- . 2000a. Zur Herkunft der altindischen Infinitive auf *-sáni*. *MSS* 60, 135–167.
- . 2002. *Die primären s-Stämme im Indogermanischen*. Wiesbaden: Reichert.
- . 2007. Zur Entstehung des Motionssuffixes idg. *\*-ih<sub>2</sub>-*. *IJDLL* 4, 1–24.
- Sundermann, W., A. Hintze & F. de Blois (eds.) 2009. *Exegisti monumenta*. Festschrift in Honour of Nicholas Sims-Williams. Wiesbaden: Harrassowitz (Iranica 17).
- Swennen, Ph. 1995. Les participes présents féminins actifs dans l’Avesta. *AION* 55, 207–216.

- . 1998. Une nouvelle tentative de commentaire de la strophe Yt 5.7. *StIr* 27, 205–212.
- . 2001. Notes sur la présence d’Indra dans le panthéon Arya. *Studi Epigrafici e Linguistici sul Vicino Oriente antico* 18, 105–114.
- . 2002. Notes d’onomastique indo-iranienne ancienne. In Huyse (ed.) 2002, 163–174.
- . 2003. Indo-iranien \**arund-*. *JA* 291, 69–96.
- . 2006. Réflexions relatives à l’édition du Hordad Yast de l’Avesta. In: Panaino & Piras (eds.) 2006, 225–232.
- . 2007. L’hypothèse de la Stammhandschrift dans le corpus des Yašt. In: Macuch *et al.* (eds.) 2007, 423–431.
- . 2015. Indo-iranien \**niyaidaja-*: le mécanisme de l’annonce liturgique. In: Cantera & Ferrer-Losilla (eds.) 2015, 209–217.
- . 2015a. *Démons iraniens*. Actes du colloque international organisé à l’Université de Liège les 5 et 6 février 2009 à l’occasion des 65 ans de Jean Kellens. Liège: Presses Universitaires de Liège.
- . 2016. Xavier Tremblay et la liturgie longue proto-indo-iranienne. Présentation. In: Pirart (ed.) 2016, 1–87.
- . 2016a. Le Yasna Haptañhāiti entre deux existences. In: Redard (ed.) 2016, 143–153.
- Taillieu, D. 1994 [1995]. Old Iranian *haoma-*: a Note on its Pharmacology. *Acta Orientalia Belgica* 9, 187–192.
- . 2003. Haoma i. Botany. *Encyclopaedia Iranica* Vol. XI, Fasc. 6, 659–662.
- Testen, D. 1994. The spread of *η* in the Avestan *u*-stem paradigm. *Chicago Linguistic Society* 30, 418–427.
- Thompson, G. 2002. *Ádhrigu* and *drigu*: On the Semantics of an Old Indo-Iranian Word. *JAOS* 122 (= Indic and Iranian Studies in Honor of Stanley Insler on His Sixty-Fifth Birthday), 411–418.
- Thornton, E. 2014. Indo-Iranian Comparative Poetics and the Power Dynamics of Vasiṣṭhas’s Hymn to Varuṇa, *Rig Veda* VII.86. In: Jamison *et al.* (eds.) 2014.
- Tichy, E. 1985. Jungavestisch *sūnīš*. *KZ* 98, 150–161.
- . 1986. Ved. *ṛtāvan-* und avestisch *ašauuan-*. *Die Sprache* 32 (= *Fs Mayrhofer*), 91–105.
- . 1995. *Die Nomina agentis auf -tar- im Vedischen*. Heidelberg: Winter.
- . 1997 [2000]. Fleisch und Haoma. Zu Interpretation von Yasna 48,10. *Die Sprache* 39, 89–104.
- Tongerloo, A. van (ed.) 2003. *Iranica Selecta*. Studies in honour of Professor Wojciech Skalmowski on the occasion of his seventieth birthday (Silk Road Studies VIII). Turnhout: Brepols.

- Tremblay, X. 1996. A propos de deux éditions récentes du Yašt XIX (Notes de lecture avestiques I). *Die Sprache* 38, 99–131 and 213–217 (Addenda et Corrigenda).
- . 1996a. Jungawestisch *sanat*. *Sprache* 38, 14–29.
- . 1997. Numératifs et compréhensifs dans le Vidēvdāt. *StIr* 26, 157–172.
- . 1997a. Avestique *jaṣāuruuāñhəm*, *jaṣāurūm*, et sogdien *γr*. *Die Sprache* 39, 123–127.
- . 1998. Sur *parsui* du Farhang-i-ōim, *ratu-*, *pərətu-*, *pitu-* et quelques autres thèmes avestiques en *-u*. *StIr* 27, 187–204.
- . 1999. Ist jungawestisch *nāismi*, *nāist* Präsens oder sigmatischer Aorist? In: Eichner & Luschützky (eds.) 1999, 537–543.
- . 1999a. *Études sur les noms suffixaux athématiques de l'Avesta*. Unpubl. thèse de doctorat, École Pratique des Hautes Études Paris.
- . 2000. Review of R.E. Emmerick & P.O. Skjærvø, *Studies in the Vocabulary of Khtanese* III. Wien 1997. *IJJ* 43, 191–196.
- . 2001. Pour une histoire de la Sérinde. Wien: Österreichische Akademie der Wissenschaften (SbÖAW 690).
- . 2002 [2006]. Ist die Aktivendung 3Pl *-āra* in einigen ostiranischen Sprachen inneriranische Entwicklung oder indogermanisches Erbe? (mit einem Exkurs über die athematischen Endungen des Chwaresmischen). *MSS* 62, 259–287.
- . 2003. Interne Derivation: 'Illusion de la reconstruction' oder verbreitetes morphologisches Mittel? Am Beispiel des Avestischen. In: E. Tichy, D.S. Wodtko, B. Irslinger (eds.), *Indogermanisches Nomen: Derivation, Flexion und Ablaut. Akten der Arbeitstagung der Indogermanischen Gesellschaft Freiburg i. Breisgau, 19–22 September 2001*. Bremen: Hempen, 231–259.
- . 2004. La toponymie de la Sogdiane et le traitement de *\*xθ* et *\*fθ* en Iranien. *Essais de grammaire comparée des langues iraniennes* VII. *StIr* 33, 113–149.
- . 2006. Le pseudo-gâthique. Notes de lecture avestiques II. In: Panaino & Piras (eds.) 2006, 233–281.
- . 2006a. Yasna 44,12. Notes de lecture avestiques IV. *IJJ* 49, 305–318.
- . 2006b. Sogdien et Avesta. *Essais de grammaire comparée des langues iraniennes* VIII. In: Matteo Comparetti, Paola Raffetta & Gianroberto Scarcia (eds.), *Ērān ud Anērān*. Studies Presented to Boris Il'ič Marshak on the Occasion of His 70th Birthday. Venezia: Libreria Editrice Cafoscarina, 621–632.
- . 2006c. Ostiran vs. Westiran. Ein oder zwei Iran vor der islamischen Eroberung? In: Eichner *et al.* (eds.) 2006, 217–239.
- . 2007. Le Yasna 58 *Fšušē Mqθra haḍaoxta* [Notes de lecture avestiques V]. *Annuaire 107<sup>e</sup> année, Collège de France, Paris*, 683–693.
- . 2008. Iranian historical linguistics in the twentieth century – Part two. *IESB* 13, 1–51.



- . 2008a. Les prétendus cas de traitement perse des prépalatales suivies de waw en ossète et l'évolution de la séquence *\*sf* dans les langues iraniennes. In: Huber *et al.* (eds.) 2008, 561–575.
- . 2009. Les prépalatales indo-européennes devant dentale en iranien. Essais de grammaire comparée des langues iraniennes xiv. In: Pirart & Tremblay (eds.), 327–359.
- . 2012. Zum Begriff 'Nartensystem'. Apophonica V. In: Sadovski & Stifter (eds.) 2012, 419–444.
- Tucker, E. 1998. Old Iranian superlatives in *-išta-*. In: P. Elbourne, Ph. Probert, J. Zerdin (eds.), *Oxford University Working Papers in Linguistics, Philology and Phonetics* vol. 3, March 1998, 105–124.
- . 2004. Denominative Verbs in Avestan: Derivatives from Thematic Stems. In: J.H.W. Penney (ed.), *Indo-European Perspectives*. Studies in Honour of Anna Morpurgo Davies. Oxford: OUP, 548–561.
- . 2009. Old Iranian Superlatives in *-išta-*. In: Sundermann *et al.* (eds.) 2009, 509–526.
- . 2013. Old Persian *asabāra-* 'horse-borne', RV *kṣīrapākā-* 'cooked in milk', and the Restructuring of Vowel Quantities in Indo-Iranian Thematic Verbal Nouns. In: Jamison *et al.* (eds.) 2013, 229–242.
- . 2013a. How well did the late Younger Avestan composers understand the language of the Gāthās? In: Pirart (ed.) 2013, 211–224.
- de Vaan, M. 1997 [2000]. Avestan *\*pouru.zaoθra-*. *Die Sprache* 39, 128–135.
- . 1997a [2000]. Review of Blažek 1999e. *Die Sprache* 39, 239–242.
- . 2000. The Indo-Iranian animal suffix *\*-ā́ca-*. *IJ* 43, 279–293.
- . 2000a. Altavestisch *pišīia-* und Sanskrit *pec-*. In: M. Ofitsch & Chr. Zinko (eds.), *125 Jahre Indogermanistik in Graz*. Festband anlässlich des 125-jährigen Bestehens der Forschungsrichtung "Indogermanistik" an der Karl-Franzens-Universität Graz. Graz: Leykam, 71–86.
- . 2001. Avestan *vaēsmānda*. *MSS* 61, 185–192.
- . 2003. *The Avestan Vowels*. Amsterdam & New York, NY: Rodopi (Leiden Studies in Indo-European 12).
- . 2004. 'Narten' Roots from the Avestan Point of View. In: A. Hyllested et alii (eds.), *Per aspera ad asteriscos*. Studia Indogermanica in honorem Jens Elmegård Rasmussen Sexagenarii Idibus Martiis MMIV. Innsbruck: Institut für Sprachwissenschaft, 591–599 (IBS 112).
- . 2004a. Jungavestisch *kamciŋ vā* 'oder irgendeiner'. In: Anreiter, Haslinger, Pohl & Weinberger (eds.) 2004, 537–546.
- . 2004b. Review of Panaino 2002. *IJ* 47, 366–369.
- . 2005. Review of Stüber 2002. *Kratylos* 50, 60–65.

- . 2005a. Old Avestan *xʷa-* and Young Avestan *hauua-* ‘own’. In: Meiser & Hackstein (eds.) 2005, 699–708.
- . 2006. The Instrumental Plural of *u*-stems in Young Avestan. In: Panaino & Piras (eds.) 2006, 283–291.
- . 2008. Young Avestan *ape* (Yasna 19.8). *JCOI* 68, 72–80.
- . 2009. Syntax and etymology of Young Avestan *bā* and *bōiṭ*. In: Pirart & Tremblay (eds.) 2009, 43–55.
- . 2012. The Avestan compounds in *°niuuā* and *°niuuqn*. In: Sadovski & Stifter (eds.) 2012, 31–44.
- . 2013. On the nasalization of *h* to *ḡh* in Avestan. In: Pirart (ed.) 2013, 49–51.
- . 2015. Young Avestan *bāḍa*. In: Cantera & Ferrer-Losilla (eds.) 2015, 219–232.
- Vahman, F. & C.V. Pedersen (eds.) 2007. *Religious Texts in Iranian Languages*. Symposium held in Copenhagen May 2002. Copenhagen: Det Kongelige Danske Videnskabernes Selskab, (Historiske-filosofiske Meddelelser, vol. 98).
- Vegas Sansalvador, A. 2016. Iranian *Anāhitā-* and Greek Artemis: Three Significant Coincidences. In: Gunkel *et al.* (eds.) 2016, 433–443.
- Vijūnas, A. 2009. The Indo-European Primary *T*-Stems. Innsbruck: Institut für Sprachwissenschaft (IBS 133).
- Viredaz, R. 1997. ‘Six’ en indo-européen. *IF* 102, 112–150.
- Wackernagel, J. & A. Debrunner 1896–1954. *Altindische Grammatik* vol. I (1896), II.1 (1905), II.2 (1954), III (1929/1930). Göttingen: Vandenhoeck & Ruprecht.
- Watkins, C. 1987. How to kill a dragon in Indo-European. In: C. Watkins (ed.), *Studies in Memory of Warren Cowgill (1929–1985)*. Berlin & New York: de Gruyter, 270–299.
- . 1995. *How to Kill a Dragon. Aspects of Indo-European Poetics*. New York & Oxford: OUP.
- . 1997. ‘Throng-lord of throngs’: an Indo-Iranian stylistic figure. In: Pirart (ed.) 1997, 215–220.
- . 2005. Two tokens of Indo-Iranian hieratic language. In: Schweiger (ed.) 2005, 681–687.
- Weber, D. 2005 (ed.), *Languages of Iran: Past and present*. Iranian Studies in memoriam David Neil MacKenzie. Wiesbaden: Harrassowitz (Iranica 8).
- Weiss, M. 1991–3. OCS *spodъ* and Avestan *spāda-*. *Die Sprache* 35, 125–127.
- . 1994. Life Everlasting: Latin *iūgis*, Greek ὑγιής “healthy”, Gothic *ajukdūps* “eternity” and Avestan *yauuaēñ* - “living forever”. *MSS* 55, 131–156.
- Werba, Ch. 1999. Jungavestisch *aīβiiāxšaiia-*. In: Eichner & Luschützky (eds.) 1999, 615.
- . 2005. Sanskrit *duhitár-* und ihre (indo-)iranischen Verwandten: Zur ‘Vokalisierung’ der Laryngale im Ur(indo)arischen. In: Schweiger (ed.) 2005, 699–732.

- West, M.L. 2004. An Indo-European Stylistic Feature in Homer'. In A. Bierl, A. Schmitt & A. Willi (eds.), *Antike Literatur in neuer Deutung: Festschrift für Joachim Latacz anlässlich seines 70. Geburtstags*. München & Leipzig: Walter de Gruyter, 33–49.
- . 2007. *Indo-European Poetry and Myth*. Oxford: OUP.
- . 2007a. The Querulous Cow. An Essay in Gāthic Interpretation. *Iran* 45, 71–85.
- . 2010. *The Hymns of Zoroaster*. A New Translation of the Most Ancient Sacred Texts of Iran. With Introduction and Commentary. London & New York: I.B. Tauris.
- . 2011. *Old Avestan Syntax and Stylistics*. With an edition of the texts. Berlin & Boston: de Gruyter (Abhandlungen der Akademie der Wissenschaften zu Göttingen, Neue Folge, Band 13).
- Widmer, A. 2002. Indoiranisch–finnisch-ugrische Beziehungen im Spiegel der Mythologie. In: Blokland & Hasselblatt (eds.) 2002, 414–427.
- Widmer, P. 2004. *Das Korn des weiten Feldes*. Interne Derivation, Derivationskette und Flexionsklassenhierarchie: Aspekte der nominalen Wortbildung im Urindogermanischen. Innsbruck: Institut für Sprachwissenschaft (IBS 111).
- . 2005. Der altindische *vrkī*-Typus und hethitisch *nakkī*: Der indogermanische Instrumental zwischen Syntax und Morphologie. *Die Sprache* 45, 190–208.
- . 2007. Zur Bedeutung von indoiranisch *\*nāuija-*. *IJ* 50, 215–228.
- . 2012. Satzspaltung im Avestischen und Altpersischen (mit einem Ausblick auf das Mittelpersische). *IJ* 55, 119–137.
- Willi, A. 2007. Of aspects, augments, aorists — or how to say to have killed a dragon. In: C. George *et al.* (eds.), *Greek and Latin from an Indo-European Perspective*. Cambridge: CUP (Proceedings of the Cambridge Philological Society, suppl. vol. 32), 34–48.
- Windfuhr, G. (ed.) 2009. *The Iranian Languages*. London and New York: Routledge (Routledge Family Series).
- Witzel, M. 1999. Substrate Languages in Old Indo-Aryan (Rgvedic, Middle and Late Vedic). *EJVS* 5:1, 1–67.
- . 2003. Linguistic Evidence for Cultural Exchange in Prehistoric Western Central Asia. In: V. H. Mair (ed.), *Sino-Platonic Papers* 129.
- Yakubovich, I.S. 2012. Rev. of Wendtland, *Die Entwicklung von Demonstrativpronomen zu Artikeln im Soghdischen*. Wiesbaden 2011. *ZDMG* 162, 495–497.
- Yoshida, Y. 1996 [1998]. The Sogdian Dhūta Text and Its Chinese Original. *Bulletin of the Asia Institute* 10, 167–173.
- Zehnder, Th. 2012. Vriddhiableitungen von Adverbien. In: Sadovski & Stifter (eds.) 2012, 461–485.
- Ziegler, S. 2004. Uridg. *\*uēnh<sub>1</sub>-* “(hin)schütten, ausbreiten”. *HS* 117, 1–12.

## Abbreviations

### In References

- AION* = *Annali dell' Istituto Orientale di Napoli, sezione linguistica*  
*AF* = *Altorientalische Forschungen*  
*AuOr* = *Aula Orientalis*  
*BAI* = *Bulletin of the Asia Institute*  
*BSL* = *Bulletin de la Société de Linguistique de Paris*  
*EJVS* = *Electronic Journal of Vedic Studies*  
*HS* = *Historische Sprachforschung*  
*IBK* = *Innsbrucker Beiträge zur Kulturwissenschaft*  
*IBS* = *Innsbrucker Beiträge zur Sprachwissenschaft*  
*IESB* = *Indo-European Studies Bulletin*. University of California at Los Angeles  
*IF* = *Indogermanische Forschungen*  
*IJ* = *Indo-Iranian Journal*  
*IJDL* = *International Journal of Diachronic Linguistics and Linguistic Reconstruction*  
*IrSt* = *Iranian Studies*  
*IsMEO* = *Istituto Italiano per il Medio ed Estremo Oriente*  
*JA* = *Journal Asiaticque*  
*JCOI* = *Journal of the K.R. Cama Oriental Institute*  
*JIES* = *Journal of Indo-European Studies*  
*JRAS* = *Journal of the Royal Asiatic Society*  
*KZ* = *Kuhn's Zeitschrift für Vergleichende Sprachforschung*  
*MSS* = *Münchener Studien zur Sprachwissenschaft*  
*MFhS* = *Münchener Forschungen zur historischen Sprachwissenschaft*  
*SbÖAW* = *Sitzungsberichte der Österreichischen Akademie der Wissenschaften, philosophisch-historische Klasse*  
*StII* = *Studien zur Indologie und Iranistik*  
*StIr* = *Studia Iranica*  
*TPS* = *Transactions of the Philological Society*  
*ZcP* = *Zeitschrift für celtische Philologie*  
*ZDMG* = *Zeitschrift der Deutschen Morgenländischen Gesellschaft*

### Texts

- DN* = Darius, Naqš-i Rostam  
*FiO* = Farhang-i ōīm  
*H* = Hāḍōxt Nask  
*Hērb.* = Hērbdestān

N = Nērangestān  
 Ny = Niyāyišn  
 RV = ṛgveda  
 Vd = Vidēvdād  
 Vr = Visperad  
 Y = Yasna  
 YH = Yasna Haptaṇhāiti  
 Yt = Yašt  
 Zs = Zādspram

### Other abbreviations

adj. = adjective  
 Arm. = Armenian  
 athem. = athematic  
 Av. = Avestan  
 Bactr. = Bactrian  
 C = any consonant  
 dem. = demonstrative  
*et al.* = *et alii* ‘and others’  
 f., fem. = feminine  
 fn. = footnote  
 Grk = Greek  
 H = any laryngeal  
 hrsgg. = herausgegeben  
 Hsch. = Hesychios  
*ibid.* = *ibidem* ‘in the same place’  
*id.* = *idem* ‘the same’  
 IE = Indo-European  
 Ir. = Iranian  
 IIr. = Indo-Iranian  
 istr. = instrumental  
 m., masc. = masculine  
 MIr. = Middle Iranian  
 MMP = Manichaean Middle Persian  
 MP = Middle Persian  
 ms., mss. = manuscript(s)  
 n. = note  
 OCS = Old Church Slavonic  
 OIr. = Old Iranian

OP = Old Persian  
Pahl. = Pahlavi  
Parth. = Parthian  
PIE = Proto-Indo-European  
PIIr. = Proto-Indo-Iranian  
PIr. = Proto-Iranian  
pron. = pronoun  
q.v. = *quod vide* ‘which see’  
R = any resonant  
Sogd. = Sogdian  
subst. = substantive  
s.v., s.vv. = *sub voce*, *sub vocibus* ‘under the word’, ‘under the words’  
them. = thematic  
V = any vowel  
Ved. = Vedic  
vs. = *versus* ‘against’

Almut Hintze  
SOAS, University of London  
Zartoshty Brothers Professor of Zoroastrianism  
Department History, Religions and Philosophies  
Thornhaugh Street, Russell Square  
London WC1H 0XG  
United Kingdom  
ah69@soas.ac.uk